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MARYLAND ACADEMY OF GENERAL PRACTICE ISSUE

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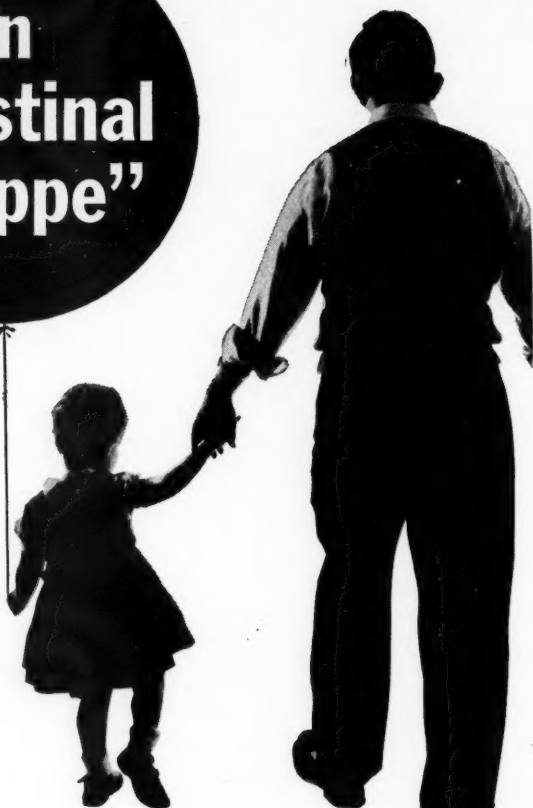
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ANNUAL MEETING—WEDNESDAY, THURSDAY, FRIDAY, APRIL 26, 27, 28, 1961

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EDITORIAL

What's Behind the Exodus of German Doctors?

EVERY YEAR 500 German interns come to the United States for training in our hospitals. Almost every young German physician wants to come here and to remain here; for in Germany the young doctor is given no chance to practice by his older colleagues, while in America the young doctor is encouraged from the start to compete on an equal footing with his older colleagues.

The young doctor in Germany is severely handicapped by two principal factors: one is the domination of practice by the professors, the chiefs of service, and the elderly physicians in general; the other is the German system of socialized medicine.

Anyone who is anxious to see how socialized medicine works should go to Germany. The people, the doctors, and the insurance companies are all "fed up" with it. To illustrate how their system works, a graduate of a German medical school completes three additional years of graduate training, then becomes theoretically eligible to participate as a general practitioner in the National Health Program, the so-called *Krankenkasse*, under which 85 per cent of the German population is insured. Only a limited number of doctors are permitted to take part in this health program, however, and these posts are all filled by older men. Thus a physician cannot hope to be employed in this program until he is well over 40 years old. What remains for the younger physician is that 15 per cent of the population who are not insured. These individuals are in a slightly higher income bracket than the others, and they do not want a young physician. They want an older one, preferably a professor.

Should a young medical graduate choose to become a specialist (a *Facharzt*) and complete at least eight years of postgraduate training before becoming eligible to apply for such a rating, he finds it almost impossible to secure a hospital appointment permitting him to treat patients, unless, perhaps, he buys stock into or builds a small private clinic. All the university hospitals, and the other large hospitals, which are mainly run by various religious denominations, are rigidly controlled by the professor or chief of service, to whom every patient must be referred. He employs a few full-time assistants at a very low salary, to whom he may delegate the care of a patient. These assistants remain with him

Extract of a report by I. Ridgeway Trimble, M.D., to the Surgeon General of the Army.

10, 15 or more years, waiting either for an appointment to a vacancy as chief elsewhere or for the present chief to retire or die.

People who are ill must wait for hours or even days to see their *Krankenkasse* physician, having first secured signed applications from their place of employment and from the *Krankenkasse* bureau permitting them to request an appointment. They can go to a hospital only if this doctor agrees, and even he cannot treat them there.

A doctor is permitted to prescribe only a limited amount of drugs to a patient each year. If more are prescribed, the doctor must justify this request by filling out special papers; if more drugs are given than allowed by law, the physician must pay for them himself.

The present system of medical education and practice in Germany is resulting in a wholesale exodus of young doctors from that country. Eventually it will discourage bright young Germans from even considering a career in medicine.

ALCOHOLISM INFORMATION CENTER OPENED IN BALTIMORE

With the boost from President Eisenhower's proclamation of November 28 through December 2, 1960, as Alcoholism Information Week, the Maryland Society on Alcoholism opened an information center in Baltimore. In addition to the dissemination of literature pertaining to alcoholism, the information center provides a free counseling service for individual needs and information and help to private industry.

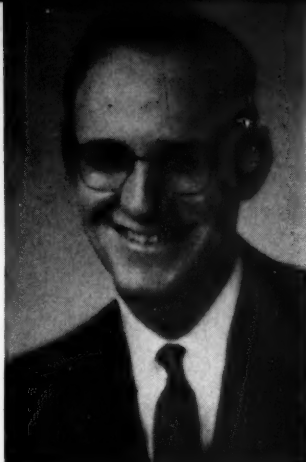
Located at 106 West 25th Street, the information office is open weekdays from 9 A.M. to 5 P.M.; other times by appointment.

The Maryland Society of Alcoholism has been in existence for eight years and includes in its membership representatives of the medical and legal professions, the clergy, business and civic leaders, as well as public citizens, all of whom are concerned with alcoholism as a disease.

Of primary concern to the community is immediate aid for individuals suffering from acute alcoholism and rehabilitation of the recovering alcoholic. To this end, committees have been formed to establish liaison with legal and health departments of the community to facilitate commitment (when necessary) and to establish both in-patient and out-patient hospital care, which are urgently needed.

With a program designed to reach the general public, teachers, clergy, and the medical profession through press, radio, and television, it is believed that a stimulated reaction will result in both industry and in education to bring the problem of alcoholism out into the light where treatment and recovery can be more successfully accomplished.

Funds will be solicited in order to finance the staffing and maintenance of the Alcoholism Information Center. Mr. W. T. Dixon Gibbs, executive director, is in charge of this program. Presently, the information office is staffed with volunteer helpers.



Andrew C. Mitchell, M.D., president,
The Maryland Academy of General
Practice.

President's Word

MARYLAND ACADEMY OF GENERAL PRACTICE ISSUE

We are indebted to William Schuman, M.D., director of medical education and director of Postgraduate Institute, North Charles General Hospital, for obtaining the material included in this issue.

IN THE BEGINNING, all doctors were general practitioners. Their job was to cure sick people. Then it became impossible for one man to know all there was to know about medicine. Despite years of formal education, he could only learn so much. Medical care had reached an era of specialization. This was good for medicine. It provided doctors who knew a great deal about certain diseases or parts of the body. By 1947, family doctors were in short supply. To counteract the pendulum's swing, the American Academy of General Practice was organized in June, 1947. From a handful of family doctors, about 150, the following aims and ideals, in non-parliamentary language, were accepted.

1. To promote and maintain the highest standards of general practice.
2. To encourage medical students to become qualified general doctors.
3. To preserve the general practitioner's right to practice medicine to the full extent of his ability.
4. To provide postgraduate training opportunities for the family doctor.
5. To advance the science of medicine and the nation's health and welfare, and to preserve the right of free choice of physicians to the patient.

Today, with more than 26,000 members, the Academy is the nation's second largest medical association.

The Maryland Chapter of the American Academy of General Practice was also organized in 1947. Since that time, the Maryland Chapter has grown steadily and, at the present time, has approximately 300 members. Among the outstanding members of the Maryland Academy are: Bender B. Kneisley, M.D., Hagerstown; E. Paul Knotts, M.D., Denton; Norman E. Sartorius, M.D., Pocomoke City; Nathan E. Needle, M.D., Charles F. O'Donnell, M.D., and L. L. Keown, M.D., all of Baltimore; Hugh W. Ward, M.D., Owings; Page C. Jett, M.D., Prince Frederick; Emily H. Wilson, M.D., Lothian; Wolcott L. Etienne, M.D., College Park; Archie R. Cohen, M.D., Clear Spring; E. I. Baumgartner, M.D., Oakland; Harold B. Plummer, M.D., Preston; John G. Ball, M.D., Bethesda, and Louis R. Schoolman, M.D., Frederick.

As president of the Maryland Academy of General Practice, I would like to invite any family doctor who is interested in membership to write and ask any questions that he may wish answered.

THE MARYLAND ACADEMY OF GENERAL PRACTICE
POSTGRADUATE DAY
Thursday, May 12th, 1960
at
NORTH CHARLES GENERAL HOSPITAL
BALTIMORE
SPECIAL HOSPITAL DAY PROGRAM

1:15 P.M. AFTERNOON SESSION

"THE PATIENT IN THE HOSPITAL ENVIRONMENT"

Presiding: WALTER A. ANDERSON, M.D., President, Maryland Academy of General Practice;
Chief, Department of General Practice, North Charles General Hospital.

- 1:20 P.M. **Hospital vs. Home in Childhood Illness**
MATTHEW DEBUSKEY, M.D., Assistant Professor of Pediatrics, Johns Hopkins Medical School.
- 2:00 P.M. **Staphylococcal Infections**
LEIGHTON E. CLUFF, M.D., Chief, Division of Infectious Diseases, Johns Hopkins Medical School.
- 2:45 P.M. **Factors Influencing the Results of Anesthesia**
OTTO C. PHILLIPS, M.D., Chief Anesthesiologist, Hospital for the Women of Maryland.
- 3:30 P.M. **Xray Contrast Media Reactions and Complications**
JOHN G. MCAFEE, M.D., Associate Professor of Radiology, Johns Hopkins Medical School.
- 4:00 P.M. **Panel Discussion**

9:15 P.M. EVENING SESSION,

"THE DOCTOR IN THE HOSPITAL ENVIRONMENT"

Presiding: WILLIAM SCHUMAN, M.D., Director of Medical Education and
The Postgraduate Institute, North Charles General Hospital.

- a) **The Problem of Controlling Hospital Admissions Under Insurance Programs.**
C. REID EDWARDS, M.D., Professor of Surgery, University of Maryland Medical School; Chairman, Joint Committee on the Use of Hospital Facilities.
- b) **The Medical Staff and the Governing Board in the Administration of the Community Hospital.**
JUDGE JOSEPH SHERBOW, President, Board of Directors, Sinai Hospital; Legal Counsel for the Hospital Council of Maryland, Inc.
- c) **The Role of the Doctor in Hospital Operation and Planning.**
RUSSELL A. NELSON, M.D., Medical Director, Johns Hopkins Hospital; President, American Hospital Association.
- d) **The Effect of the House Staff Shortage on the Visiting Staff Physician.**
LEROY E. BATES, M.D., Medical Director, Union Memorial Hospital; Chairman, Conference on Problems and Issues in Graduate Medical Education in the Community Hospital.
- Panel Discussion**

(Refreshments)

THE PATIENT IN THE HOSPITAL ENVIRONMENT

HOSPITAL _____ VS. _____ HOME

In Care of Childhood Illness

The problem of hospitalization versus home treatment of a sick child is influenced by many considerations, some easily recognized, others intangible. Primarily, we are concerned with the child and his illness. Not to be discounted, however, are factors involving the hospital, the doctor, and the parents. The occurrence of unfortunate emotional consequences is cited; measures to minimize this possibility are suggested. The particular emphasis directed toward the mental health aspects of the sick child has been tersely condensed in a comment by the eminent British pediatrician, Alan Moncrieff, "The emotional needs of the sick child need as much consideration as his food or drug therapy."

Matthew Debuskey, M.D.*

AT FIRST GLANCE, the title of this paper appeared to be a simple one, and I accepted the invitation of Dr. Schuman to discuss it with pleasure and complacency, but the more I thought about it, the more I became impressed with the complexities at issue.

There is no doubt that the criteria on which we base the decision to hospitalize vary from year to year. Not too many years ago, pediatric beds were loaded with pneumonia, dysentery, meningitis, chronic otitis, and mastoiditis. Sydenham Hospital, the contagious disease unit, was flooded during peak seasons with complications of scarlatina, measles, and polio, chronic osteomyelitis, and tuberculous bone and joint disease.

With the progressive development of antibiotics and prophylactic immunization, these diseases have been dramatically reduced in incidence. No longer does one see in the wards row after row of oxygen tents. Surgical mastoids are almost unknown. Sydenham is closed, and orthopedic hospitals are exploring new fields of service to keep their beds occupied.

Although the ebbing of these causes for hospitalization might be related to what the epidemiologists call status epidemicus, or the natural cycles through which diseases progress, I am

*Attending pediatrician and chief, Adolescent Clinic, Sinai Hospital of Baltimore, Inc.; assistant professor of pediatrics, Johns Hopkins Medical School.

inclined to attribute it, in considerable degree, to the early, vigorous, and appropriate use of antimicrobial therapy. The perturbation experienced by my academic colleagues at what they consider the excessive and unwarranted use of antibiotics must be balanced against this real decrease in incidence.

Paradoxically, however, the reduction of these in-patients, as well as the increase in number of specialized pediatric beds available, has not eased the task of the physician in gaining admission for a patient when his choice of hospitalization has been made. But this problem of availability of beds and others that we shall consider are subordinate or secondary considerations. The primary purpose of a hospital is to provide facilities for (a) diagnosis and (b) treatment that can only be accomplished in the hospital or can be done better in the hospital.

We may divide patients into three categories:

I. Home patients at one end of the balance.

These, fortunately, form the overwhelming bulk of pediatric patients. They have the common respiratory, intestinal, and contagious diseases.

II. Hospital patients at the other end.

A. Emergencies

1. Accidents with prospects of shock or serious injury
2. Poisonings (e.g. salicylate, barbiturate, hydrocarbon, corrosives)
3. Respiratory obstruction (foreign body, laryngeal croup)
4. Gross bleeding
5. Coma

B. Surgical conditions

1. Emergency
2. Urgent
3. Elective

C. Medical (a gross generalization with no attempt to be complete)

1. When experienced care, particularly with infants, is required
2. When hospital facilities (oxygen, moisture, intravenous equipment, electrolytes, blood) are needed
3. When clinical judgment suggests a serious condition that needs rapid clarification
4. Deterioration of status (e.g., rheumatic, congenital heart disease, diarrhea and dehydration)

5. Terminal states (e.g. leukemia, neoplasms)

Most of these problems are far more serious in infants than in older children, for their ability to communicate is narrow or absent. The margin of safety is limited.

III. Patients in whom controversy might develop as to the need for hospitalization. For illustration, we might choose a child with rheumatic fever, hemorrhagic nephritis, infectious hepatitis, poliomyelitis, pneumonia, or purpura.

No one would raise any determined objection to an assertion that these children should be hospitalized. Yet most of them can be handled at home, if laboratory tests are available to chart their progress and medication can be adequately administered.

What factors, then, enter into the decision to hospitalize or to keep the child at home?

First, the factor of the hospital:

1. Scarcity of beds.

This occurs with cyclical variations, but when it develops, the physician is placed in the disagreeable position of entreating, bullying, or cajoling the admitting officials to find a bed. Alternatively, he might join the staff of several hospitals to minimize this possibility of rejection and, in so doing, dilute his contribution to each. Or he might do his best with the patient at home. Moreover, the inexplicable improvement of the critical patient on admission or a prosaic solution to the clinical enigma might tint his future judgment concerning the preemption of a valuable bed.

2. Hospital charges.

The expense of hospitalization is a serious factor in spite of the much repeated aphorism, "Better be a good doctor than a poor economist."

3. Hospitalization insurance.

Conversely, the possession of insurance occasionally encourages pressures on the doctor to hospitalize whether this is vitally needed or not. Abuses do occur, and, I should judge, in proportion to the murkiness and confusion of poorly conceived regulations; but this is an auxiliary factor.

4. Cross infection. This problem is one to be considered even in the best organized pediatric departments. Contagious diseases can

erupt; streptococcal infection may spread through a unit population. Viral agents occasionally contaminate; and, most disturbing of all, the resistant staphylococcus lurks to attack with the most devastating results.

Second, the factor of the doctor:

1. From a geographic viewpoint, if a doctor has many patients in a hospital, much time is saved for him in transit; on the other hand, if a hospital is far removed from his usual locus and only a single patient is in residence, the time consumed in transit might deter him from hospitalizing.
2. With nervous parents, it might save time and energy in visits and phone calls to avoid shouldering them with responsibilities of even the simple care of a child at home.
3. With house and nursing staffs experienced in pediatrics, the physician can relax with the knowledge that routine measures will be carried out properly, and that he will be informed of any serious change in the condition of his patient.
4. In most hospitals the opportunity for consultations and advice is easily available. This adds support to his position and comfort to his state of mind.
5. The experience and age of the physician will color his decision. The young men, recently trained, feel more comfortable with a patient in the hospital; this is a familiar setting. After some practice and experience, there is a tendency to a negative phase, and more patients are kept at home. Finally, with the average physician, a prudent mean is established as a result of his personal trials and errors.
6. The personality and emotional reactions of a doctor are often decisive elements. We, as physicians, are not exempt from emotional forces that influence our patients; aggressiveness, anxieties, tensions, and defenses that we see and identify so often in them frequently flavor our own opinions and are persuasive in our decisions. There are physicians, for example, who, in the development of a differential diagnosis, proceed from the milder to the more serious conditions, as opposed to those who reverse these tactics and often are so appalled by the first few possibilities that hospitalization becomes in-

evitable. There are those to whom crepitant basilar rales represent just a virus infection or even "the crud," in contrast to those for whom every respiratory infection is potentially pneumonia. There are physicians who encourage and invite consultations and, conversely, those who resist and reject any such suggestion as an affront to their ability and esteem. These illustrations, I'm sure, are extremes, even caricatures; but, to some measure, these tendencies are operative in the judgment to hospitalize or to treat at home.

Third, the factor of the parents:

1. Among parents, the most difficult is the neurotic parent who has never resolved his or her own anxieties and has projected them to the child. The child serves as a fifth limb, to be guided and directed with the fear that if ever they were separated, he would be helpless and lost. Many times this is true, and the problem of reassuring and supporting the child is difficult. Frequently, however, one is agreeably surprised to find that the child, in spite of this handicap, has succeeded in developing an emotional strength that meets this challenging event with little fear. Rather than assume this difficult task and risk, however, a physician often will decide to attempt the management at home or possibly in the outpatient or emergency department of the hospital.
2. In contrast is the parent who is frightened at the responsibility of caring for a sick child or even rebels at the prospect. For working parents, too, the necessity to remain at home with a sick child is difficult or impossible. These factors might induce one to consider hospitalization more readily than under average circumstances.
3. Occasionally, a parent is actuated by the insurance coverage, forgetting completely the fine print that excludes diagnostic work-ups and ignoring the possible adverse effect of hospitalization on the child. This, too, might influence our decision.

Fourth, the factor of the child. It is historically appropriate to consider this factor last. Pediatrics itself had its inception possibly a half century ago, and only in relatively recent years have the psychological aspects of pedi-

atrics been developed, promoted, and accepted.

Physicians for the pediatric age group have been relieved of the burden of care for many medical problems that beset our predecessors.

Vitamin deficiencies, severe contagious diseases, and bacterial infections occupy less of our energies, and we search for new fields of service.

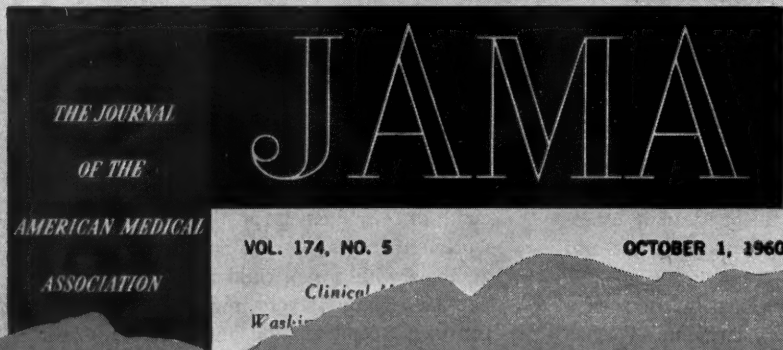
The *Evening Sun* recently quoted the finding of a combined group of psychiatrists and teachers who estimated the figure of 23,000 students in our school system who had need of psychiatric ministrations.

We enlarge our pediatric horizons to visualize the psychosomatic and stress illnesses of adults, and we feel some responsibility for the prevention or fixation of patterns that might promote these developments. We observe in our own practices that, as a group, psychological problems are encountered with far greater frequency, are provocative of more disability, and are a greater threat to the attainment of a healthy, productive, and happy adult life than are the major organic diseases.

Therefore, as practitioners with children, we

are accepting as opposite and desirable the guidance of parents and children in behavioral as well as physical development. We are overcoming our apathy, or even antipathy, to psychiatry, and we are utilizing from that discipline appropriate suggestions on emotional growth. We are gradually exorcising the fears of our own inadequacy of training, and are venturing steadily into the area of behavioral disorders. In so doing, we are mobilizing the principles of prophylaxis and prevention, so successfully established in our experience with organic disease, to apply to the field of psychological maturation.

No one will contend that the hospitalization of a child will generate asthma or peptic ulcer or incapacitating neurosis in later life. No one can, with conviction, demonstrate the pathogenicity of these diseases, how much is genetic, how much environmental, how much emotional. A child's psychic development travels a pathway over which we have limited influences; but we know what violent storms might beset his course and produce delays, detours, deviations, and even destruction. It is these serious emotional upheavals that we must try to prevent or to mod-



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erate, regardless of their origin; and to what greater degree are we obligated to exercise particular care in avoiding the onerous position of agent of provocation.

Along the road toward emotional maturity, there is one stretch that a child might be compelled to traverse; it could be smooth, or it could be rough, very rough indeed. And though we be indifferent or casual to the remainder of the route, this is one segment the maintenance and improvement of which is our job. We can neither repudiate the responsibility nor shed the trust reposed in us. I am referring to the hospitalization of a child. Papers and articles citing experiences at various hospitals and their particular efforts to deal with this problem are appearing in profusion in the journals.

The infant at first is completely self centered and self occupied. He has certain needs that must be met: food and warmth and absence of irritation—internal and external, and he is not concerned about who furnishes these wants, as long as he obtains them. During the first six months of life, he gradually develops an awareness of his external environment through the sharpened

use of all his senses, but presumably in a vague and general way. He needs physical contacts and mothering. Toward the end of the first year, he begins to particularize and to identify. At this point he recognizes and often demands his particular mother figures—often no one else will satisfy him when he is disturbed. At other times he will accept other familiar figures: father, siblings, and domestics are included in his acceptable list. At this time he becomes wary of strangers, some times even fearful, and will cry and clamor for protection.

Schaffer and Callender (1) studied 76 infants under one year who were in a hospital for three to five weeks. Twenty-five were "pure" cases (polydactyly, hernia, etc.). They found that seven months was a dividing line and a rather sharp one. The younger children exhibited little reaction; the older ones fretted and cried, refused feeding, reacted vigorously to mothers' visits. When they returned home, 28 infants under seven months exhibited extreme preoccupation with their environment for a period of from 30 minutes to four days, looking around, craning their necks, were hard to distract, subdued, or

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1. Barclay, P. L.: J.A.M.A.
174:474, Oct. 1, 1960.

quiet, and were difficult to contact by mothers. Twenty-seven older infants displayed excessive overdependence on mother, cried when left alone, were physically clinging, and exhibited fear of strangers; nine showed no reaction at all and were unchanged in behavior. Over seven months the classical separation problem appeared: initial protest, negativism to staff, subdued behavior, withdrawal, and exhibition of insecurity upon return home.

This study confirms the impression and opinion of all observers, that prior to seven or eight months, provided that someone displays a social interest toward the infant, no harmful effect is provoked by separation or hospitalization. It also suggests that indicated elective procedures be done before this age whenever possible.

The fear of strangers continues until about two, then gradually abates; but the need for the mother or mother-surrogate in times of stress continues until five or six years. We still see striking evidences of this same problem of separation when the child is admitted to nursery school or kindergarten.

The negativistic phase of child development appears at about 18 to 24 months of age. During this period, all of the baby's limited faculties seem to be focused on opposing the desires of everyone in his environment. When this is combined with a strong aggressive drive, we see the kicking, biting, pummeling child who, at home, is the bane of the neighborhood and who, in the hospital, keeps the assistant residents in superb physical condition while he wrestles with them for tests and treatment. One has but to see these turbulent sessions to recognize that a period of hospitalization for a child of this age can be traumatic physically and psychically.

In the hospital, the child's anxiety might be expressed by whimpering, crying, screaming, or panic; and somatically by vomiting, frequency of urination, and disturbance of food habits, bowel and bladder function, and sleeping habits. Thumb sucking, rocking, holding or stroking of objects—repetitious patterns which Dr. Gesell identifies as relaxational expedients—are also accentuated at this period of tension. Some children show a withdrawn tendency, others a hyperactivity. Dr. Reginald Lourie, of Washington, D. C., suggests that withdrawn behavior is relatively common

but stresses the need to be alert to the persistence of such behavior beyond the initial three or four days. Its persistence indicates a more severe emotional reaction.

The severity of these reactions diminishes in the child over five or six years. At this point, many of the overt evidences of difficult adaptation diminish or disappear—possibly a successful achievement of separation as a result of attending school. Anxiety is still in evidence, however, evoked by the concern over new and frightening experiences: fears of death, mutilation, fantasies, expressions of guilt and retribution. Dreams and nightmares occur in this age group, particularly in children who, prior to admission, failed to make a good adjustment to life situations.

Two questions are prompted. First, are these behavioral responses incidental to and limited to the period of hospitalization, or do they carry over and interfere with performance subsequently? Concerning this point we have some data. Langford (2), in 1937, described 20 children treated for an anxiety neurosis. Seven of these were related to previous hospital experience, six of which were tonsillectomies. Jessner describes 20 children out of 136 successive T & A who had severe postoperative emotional reactions. Prugh (3) indicates that with standard handling of children in hospitals, 40 per cent of the two to five age group and 25 per cent of the five to twelve age group will demonstrate severe emotional reactions six to twelve months later. With improved psychological management in the hospital, these figures are reduced to 20 per cent in the lower age bracket and to the enviable figure of 0 per cent in the upper one.

The second question is can we do anything about it? There are many things we can do.

- I. Whenever possible, avoid hospitalization for children between eight months and five to six years, and even beyond when their emotional adjustment is poor (4). Employ out-patient or emergency hospital services, whenever possible, in this group.
- II. Environmental arrangements can be child focused. Hospital areas for children should be organized with:
 - A. Cheerful and appropriate quarters
 - B. Play areas for ambulatory children
 - C. Play teachers for bedridden children

- D. Flexible arrangements for grouping to take care of various situations, recognizing ages, ailments, and attitudes
- E. Greater freedom for parental visiting
- F. Diet management reflecting not only theoretical considerations but also a practical knowledge of the items tempting and appealing to children.

III. Personnel

- A. Instruction and indoctrination of personnel, doctors, nurses, and attendants in understanding the problems besetting these children and methods of handling.
- B. Admission practices; e.g. mother to be with child when he meets the doctors and nurses.
- C. Simple explanations geared to the level of the patient's understanding in anticipation of procedures and treatment. This is especially important in the case of operative procedures, and it applies directly to private attending physicians and anesthetists.

- IV. Preparation of parents and patients for hospitalization will dispel misconceptions, fantasies, and unrealities. Dr. Potts, of Chicago, had described his particular efforts to reassure his patients admitted for cardiac surgery.

2505 West Belvedere Avenue
Baltimore 15, Maryland

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2. Langford, W. S.: Am. J. Orthopsychiat. 7:210, 1937.
3. Prugh, D. G., et. al.: Am. J. Orthopsychiat. 23:70, 1953.
4. Blom, G. E.: Pediatrics, 22:590, 1958.

The Philadelphia Regional Committee of Trauma of the American College of Surgeons announces a course in **FRAC-TURES AND OTHER TRAUMA** to be given MARCH 2, 3, and 4, 1961

by

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Fig. 1

Staphylococcal infection at the site of insertion and at the tip of an intravenous catheter.

Fig. 2

Staphylococcal infection of the thigh of a patient with systemic lupus erythematosus showing sharply demarcated edges and the absence of edema and cellulitis.

STAPHYLOCOCCAL INFECTION

Leighton E. Cluff, M.D.*

THAT THE STAPHYLOCOCCUS can produce infection in both healthy and sick persons is so well recognized it does not require documentation. Its identification as a cause of serious disease in hospitalized patients has led to intensive efforts to characterize its mode of transmission, to control development of infection, and to provide effective chemotherapeutic agents. The peculiarities of this bacterium are illustrated by its prevalence in our environment and its adaptability to environmental conditions rendering the microorganism resistant to antibacterial drugs. Furthermore, in contrast to many other bacteria, staphy-

lococcal infection seems to result in little, if any, acquired resistance to subsequent infection.

In spite of the frequency of occurrence of staphylococcal infection in the general population and in the hospital, it is only recently that efforts have been made to precisely define the incidence of these infections and to define the conditions under which they develop.

To discuss this subject we might ask certain questions for which we have, at present, reasonably satisfactory answers.

What is the incidence of staphylococcal infection in a general hospital, and where do these infections occur?

What are the clinical characteristics of the infection, and what are the associated features that may be important in determining its incidence and severity?

Where are staphylococci found in the environment, and what modes of transmission of the bacteria may be responsible for initiating infection?

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Surveillance of the overall incidence of staphylococcal infection in the hospital does not truly reflect the nature of this problem. Certain groups of patients are primarily involved in the occurrence of these infections. Most likely to acquire infection are newborn infants and patients being operated upon; in particular, those with cancer, burns, dermatitis, diabetes mellitus, and other specific underlying diseases. Protection of these susceptible persons from infection with the staphylococcus would, without question, have a greater impact upon the incidence of infection in hospitals than would efforts directed toward control of the whole hospital environment. ■ Whether or not refined methods of air purification would significantly reduce the incidence of staphylococcal infection is not known, as the proper controlled study has not been performed. It is not known, furthermore, that the airborne route is important in transmission of staphylococci responsible for infection. ■ The inadequacy of our present antibiotic therapy for staphylococcus infection is clear, and emphasis must be placed on good surgical care. The capacity of the microorganism to become resistant to antibacterial drugs has prohibited the development of effective chemotherapeutic agents that have a distinct bactericidal effect upon the staphylococcus. The ubiquitousness of the staphylococcus in the environment, however, makes it unlikely that infection by these organisms will be satisfactorily controlled by efforts directed at sterilizing the air, surfaces of rooms, or human beings. To control the problem of staphylococcal infection we must find not only new antibiotics but also means of increasing resistance of susceptible individuals to bacterial invasion.

Are there differences in virulence between strains of staphylococci that may be important in determining whether or not infection occurs?

Under present circumstances, what are the most effective agents available for treatment of staphylococcal infection when it develops?

It will not be possible to discuss completely any one of these questions; rather, I will present a brief survey of our knowledge, as well as defects in our knowledge, and will describe some of our personal investigations that may elucidate some of the parameters of staphylo-

coccal infection. No effort will be made to dwell on facts that are well known.

Historically, it is interesting to read an address by William Welch, M.D., given in 1891 before the Congress of American Physicians and Surgeons, titled "Conditions Underlying the Infection of Wounds," in which he discussed in detail many of the topics we are concerned with today, and to find that his answers to the above questions were, in most instances, little different from those that can be given today.

The development of bacteriophages, or bacterial viruses, capable of lysing many of the staphylococci responsible for disease in man and capable of distinguishing between strains of the bacteria, has provided a useful tool for epidemiological investigation; but it has not provided a clearer understanding of the pathogenesis of staphylococcal infection. In this sense, then, it has been possible to study the transmission of staphylococci and to study epidemics, but the mechanisms involved in production of infection still remain obscure.

Detection and source of infection: Staphylococcal infection in man is commonly characterized by localized inflammation with pus formation. The skin is the site of invasion in most instances, although the respiratory tract is the second favorite site for development of infection. Even though the staphylococcus usually produces a localized lesion, dissemination of the bacteria with bacteremia and metastatic abscess formation occurs occasionally and may produce death. Detection of localized infection due to staphylococci is complicated by the frequent colonization of skin and the upper respiratory tract with the organism. Isolation of staphylococci, therefore, does not always mean infection; and recognition of infection of the skin or upper respiratory tract is possible only when there is pus or cellulitis from which staphylococci are isolated.

Whether staphylococci colonizing the skin or respiratory tract are responsible for infection, or the staphylococci contracted from the environment or another person are responsible for infection is not always known and may not be definable. In our own experience, for example, the strain of staphylococcus found as a cause of furunculosis in nurses can be isolated from the nose in only one-third of instances; in two-thirds of infected persons, a staphylococcus different

from that causing the furunculosis may be found in the nose. It is possible that the patient with furunculosis may have colonization of his skin with a different staphylococcus than the one colonizing his nose, but this has not been precisely described. Therefore, it remains as a possibility that infection may develop due to a strain of staphylococcus acquired from another person or from the environment rather than due to a strain colonizing the skin or respiratory tract prior to and at the time of infection.

Factors predisposing to infection: The fact that many persons harbor pathogenic staphylococci without becoming infected is certainly suggestive that infection may develop only when there has been some alteration in host susceptibility. This is supported by the observation that infection occurs most often in an area of *trauma or injury*, as seen in postoperative wound infection. The importance of *foreign bodies* such as sutures in predisposing to wound infection is repeatedly observed clinically (1). Similarly, the insertion of intravenous catheters has recently been described as a serious cause of staphylococcal bacteremia (2). Figure 1 shows the leg of a child in whom staphylococcal infection occurred at the site of an intravenous catheter. Of particular interest in this patient was the appearance of an abscess at the tip of the catheter. Unfortunately, infections of this type are only acquired in hospitals where microorganisms resistant to antibiotics are responsible for most of the infections. Elek (3) has studied the effect of foreign bodies upon the infectivity of staphylococci in normal volunteers and has found that far fewer bacteria are required to initiate infection with silk suture than when inoculated into skin without a foreign body. The mechanism by which the foreign body increases infectivity is not known. From our own studies it does not seem likely that the inflammatory reaction to a foreign body is the important factor. It is possible, however, that the increased tissue pressure and edema about a foreign body may be incriminated; but further studies will be required to elucidate this phenomenon.

The potentially deleterious effects of *adrenal cortical steroids* upon infection has been seen repeatedly and can be shown experimentally (4). Whether steroids increase susceptibility to infection or merely increase the severity of infection

when it occurs with staphylococci is not known, however. Nevertheless, interesting variations in the characteristics of staphylococcal infection occur in patients receiving steroid therapy. For example, figure 2 shows a deep, ulcerating, sharply defined abscess of the thigh in a patient with systemic lupus erythematosus receiving steroids. The interesting feature of these infections is the complete absence of cellulitis or edema around the abscess and the absence of symptoms of infection.

Extravasation of blood in the tissues has frequently been observed to be associated with infection as seen in hemophilia, wherein such infections may be severe and extensive. It is simple to say that hematomata are good culture media, but whether or not this defines the mechanism by which extravasated blood predisposes to infection is unknown. We have had the experience, on several occasions, to observe staphylococcal infection in the area of the splenic bed following splenectomy for thrombocytopenic purpura. Figure 3 illustrates the course of one such patient and indicates the development of subdiaphragmatic abscess. These infections are usually confined to the site of hemorrhage resulting from the operative procedure. A lag period of several weeks may occasionally elapse between operation and appearance of manifestations of the infection. We have seen similar infections develop after extravasation of a blood transfusion.

Tissues of the body probably vary in their susceptibility to staphylococcal infection. As an illustration, the kidney is a favorite site for localization of staphylococci, even when bacteremia has been transient and unassociated with evidence of dissemination of the organism until the renal infection appears. Recently, for example, we observed a student nurse who had an axillary abscess that was incised and drained and then healed completely. At no time did the patient have symptoms of systemic infection such as fever, chill, or leukocytosis. About two weeks later she developed high fever and right flank pain and was found to have a right renal abscess caused by the same strain of staphylococcus responsible for her axillary abscess. No evidence of metastatic infection was found other than in the kidney. In experimental animals, it has similarly been found that the *kidney* is much more likely to become infected with small numbers of

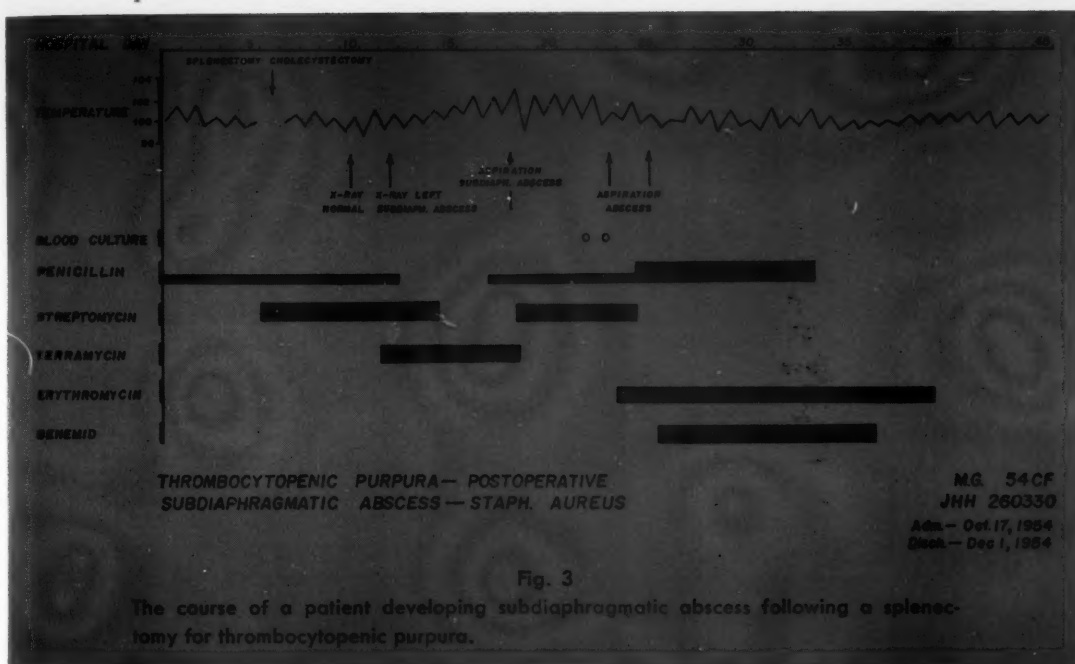


Fig. 3

The course of a patient developing subdiaphragmatic abscess following a splenectomy for thrombocytopenic purpura.

staphylococci than are many other tissues (5). In addition, we have found the knee joint of the rabbit to be susceptible to infection by fewer staphylococci than most other tissues thus far studied. This may account for the occurrence of pyoarthritis due to the staphylococcus seen frequently after joint inoculations, aspiration, or operation. A probable illustration of this is seen in figure 4, showing a patient who developed staphylococcal pyoarthritis of the hip after arthrodesis for a traumatic injury.

Epidemic staphylococcal infection has been repeatedly observed in *newborn infants* and in postpartum mothers, probably illustrating a peculiar susceptibility of infants to infection by this microorganism. The mechanism predisposing newborn babies to infection, however, is not understood.

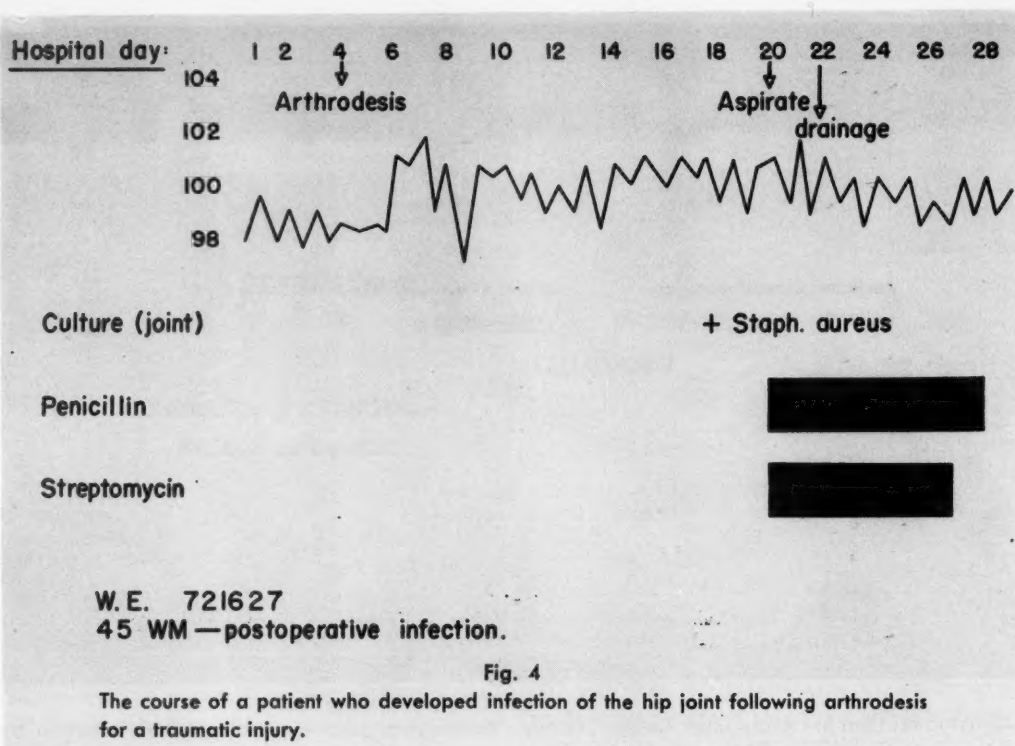
There are other examples of alterations of host resistance responsible for predisposing to infection by the staphylococcus, as seen in *influenza* followed by staphylococcal pneumonia, *sinusitis*, *bronchiectasis*, and bacterial endocarditis superimposed on a previously *diseased heart valve*. It seems amply clear, however, that staphylococcal infection, although occurring in otherwise apparently normal persons, becomes most prob-

lematical in persons predisposed to infection by age, certain associated diseases, trauma, injury, foreign bodies, or variation in tissue susceptibility.

Incidence of infection in the hospital: To more precisely define the incidence of staphylococcal infection in the hospital, we undertook to survey these infections in The Johns Hopkins Hospital during 1959 (6). The overall incidence of infection over the year was about 1.3 per cent, or 13 infections per 1,000 patients. Between February and May we observed a noticeable decline in the incidence, which was attributable to a decrease in the number of infections occurring in postoperative wounds. The reason for this decline was not clear, but it could have been the result of increased attention given to this problem and a corresponding increase in control measures.

As shown in Table I, most of the infections were occurring in surgical patients. This was not attributable to the large number of patients in our hospital being operated upon, as illustrated by the fact that although 70 per cent of infections were in postoperative wounds, only 40 per cent of patients in the hospital went to surgery.

Reports have been made suggesting that hospitals are contaminated by particularly virulent staphylococci, the strain most often incriminated



being bacteriophage type 80/81 (7). During our surveillance, only one-third of the patients were infected with this strain of bacteria, indicating that other strains accounted for the majority of infections. It is important to point out, however, that designation of the 80/81 strain as having "epidemic virulence" is based largely upon the frequency with which it has been found as a cause of outbreaks of infection in newborn nurseries (7).

The overall incidence of staphylococcal infection acquired by patients in The Johns Hopkins

Hospital might be interpreted as an acceptable endemic rate, as it compares favorably with rates found in other hospitals (8). This is not a true reflection of the problem, however, as we observed when rates of infection were examined in patients of varying age having different underlying diseases and operations of different types. Particular groups of patients seemed to develop infection more commonly than others.

Associated with increasing age was a trend toward increasing frequency of infection on both the surgical and medical services of the hospital.

Table I
Hospital Acquired Staphylococcal Infections
J. H. H. 1959

Type of Infections	Number of Infections	Number of Patients
Newborn and postpartum	10	10 (4.3%)
Postoperative wounds	167	165 (70.5%)
Others	59	59 (25.2%)
Totals	236	234 (100.0%)

That age in and of itself may not be the factor responsible for this increased incidence of infection was suggested when figures for the different illnesses presented by patients in varying age groups were examined and revealed an increasing incidence of those diseases which probably predispose to staphylococcal infection with advancing age. The influence of these underlying diseases upon the occurrence of infection in the hospital was investigated. Postoperative or surgical infection were found to occur most commonly in patients with neoplastic disease or burns, in which circumstances the attack rates were eight to ten times that for the whole hospital population. Furthermore, the types of operative procedures performed appeared to have an influence on the occurrence of staphylococcal infection. The highest attack rates were in patients having radical neck dissection for carcinoma of the neck; following amputations, many of which were done for neoplastic disease; and following pneumonectomy, done largely for carcinoma of the lung.

Although it might be suspected that postoperative wound infections would develop more often after prolonged surgical procedures, no such relationship was found. The duration of operation was as long in those who did acquire an infection as in those who did not.

Five per cent of patients with postoperative wound sepsis developed bacteremia, and approximately 10 per cent of deaths among those developing infection could be directly attributed to the infection, indicating the seriousness of the disease when it occurs.

As pointed out earlier, staphylococcal infection cannot be diagnosed solely by cultural recovery of the bacteria; rather, it is dependent upon recognition of pus or cellulitis. For this reason, it is not always a simple matter to identify infection. In our experience and in previous reports, the time lapsing between operation and recognition of a wound infection has been about seven days (6, 8). Elek (3) has shown in volunteers inoculated intradermally with staphylococci that the onset of infection and development of an abscess is usually less than 72 hours after the injection of organisms. This discrepancy between the experimentally observed lag period and the lag period between operation and recognition of infection has led some (8) to speculate that infection may

not begin in the operating room, but may begin afterwards. Many factors influence recognition of infection, however, including the frequency with which surgical sites are observed after operation, the presence or absence of a dressing, and the size of the bacterial inoculum. Furthermore, we have found that the administration of prophylactic antibiotics to the patient going to surgery may delay appearance of infection. In those receiving antibiotics, for example, the period between operation and recognition of infection was two to three days longer than in those not receiving prophylactic chemotherapy.

The studies in postoperative staphylococcal infection show, in summary, that the infection occurs more commonly in older persons, in patients with certain types of associated diseases, particularly those patients with cancer or burns, and in individuals on whom specific types of operative procedures are performed. This suggests, most assuredly, that an important determinant in the occurrence of infection is a change in resistance to infection attributable to associated illnesses.

Although the majority of staphylococcal infections acquired by hospitalized patients are seen postoperatively, there are similarities between the conditions in which these infections occur and the conditions or features of infections observed in patients not operated upon. The commonest type of infection seen in those patients not developing postoperative, postpartum, or newborn infection is furunculosis. Bacteremia occurs almost as often. Examination of the diseases associated with the development of staphylococcal infection in non-surgical patients demonstrates again the greater frequency of these infections in persons with certain types of illnesses. For example, the attack rate of staphylococcal infection in patients with cancer, diabetes mellitus, cirrhosis of the liver, dermatitis, and systemic lupus erythematosus exceeds three to 25 times that occurring in the hospital as a whole, indicating that these individuals, although exposed to the same risk of infection as other patients, are being infected much more commonly. This finding further substantiates the importance of associated illnesses in predisposing the patient to staphylococcal infection.

The way in which neoplastic disease, diabetes, and systemic lupus erythematosus increase susceptibility to infection is far from clear; although if we were to understand their influence on susceptibility to infection, we would probably be much closer to knowing how to control or prevent infection.

From these observations of the impact of underlying disease upon the occurrence of staphylococcal infection, it is possible to conclude that the frequency of these infections in hospitals may be due as much to the concentration of susceptible persons in one area as to differences in strains of staphylococci found in and out of the hospital. Whether or not these susceptible individuals would be as likely to acquire such an infection outside the hospital, however, is not known.

A comparison of the overall incidence of infection in the hospital with the incidence in exfoliative dermatitis, systemic lupus erythematosus, and other diseases is revealing. Although an overall incidence of 1.0 per cent might be considered as acceptable endemic rate, an incidence of 25 per cent in dermatitis is indicative of epidemic disease in these patients. The situation is similar with other underlying diseases and forces a re-evaluation of the problem of staphylococcus infection in hospitals.

Antibiotic therapy of staphylococcus infection in the hospital: Of particular clinical importance is the influence and effectiveness of antibiotics upon staphylococcus infection. The difference between the percentage of penicillin and other antibiotic resistant organisms found in the out-patient population as compared with the in-patient hospital population is largely responsible for the serious concern over infections caused by this bacterium in hospitals and the lesser degree of concern outside the hospital. In our own experience, only one third of out-patients are found to harbor penicillin resistant staphylococci, whereas 84 per cent of patients in the hospital harbor resistant staphylococci. The implication of this observation can be seen when we examine the survival rate from bacteremia in patients infected with an antibiotic resistant organism and the survival rate in patients infected with an antibiotic sensitive staphylococcus. Bacte-

mia due to antibiotic resistant strains was associated with a survival of only 14 per cent of patients, whereas bacteremia due to antibiotic sensitive organisms was associated with a survival of 77 per cent of patients. This finding is probably more attributable to the effectiveness or non-effectiveness of therapy than to differences in virulence of the antibiotic resistant and antibiotic sensitive staphylococci; for in this analysis, the presence of bacteremia was in and of itself an illustration of infection by a pathogenic invasive staphylococcus.

Differences in the antibiotic susceptibility of staphylococci depend upon the bacteriophage type of the organism (9). The 80/81 bacteriophage type, or "hospital strain," is by far the strain most uniformly resistant to antibiotics. Virtually all of the staphylococci belonging to this bacteriophage type are resistant to penicillin in a concentration of 250 units per ml., a level of antibiotic almost impossible to obtain in the blood clinically. Several antibiotics have a distinct bacteriostatic effect on most strains of staphylococci, including erythromycin, novobiocin, chloramphenicol, ristocetin, and oleandomycin. Although these antibiotics may suppress the growth of staphylococci and impede the progress of infection, they would be expected to be less effective than drugs capable of killing the bacteria; and there are few antibiotics with a distinct bactericidal effect. No antibiotic is uniformly bactericidal for the staphylococcus. In concentration of 50 units per ml. or more, penicillin can effectively kill 20 to 40 per cent of staphylococci belonging to bacteriophage types other than 80/81. On the other hand, bacitracin and vancomycin are the only other two antibiotics, in our experience, with a reasonable bactericidal effect on the staphylococcus; and these are as effective against the 80/81 strain as against other bacteriophage types. For this reason, in severe staphylococcal infection acquired in the hospital today, we prefer beginning treatment with vancomycin. Then if the staphylococcus proves sensitive to penicillin, this drug will be given and vancomycin discontinued. It is important to point out, however, that even vancomycin and bacitracin have a bactericidal effect against only 40 per cent of strains isolated in the hospital; there-

fore, for 60 per cent of severe infections, we have no optimally effective chemotherapeutic agent. Staphicillin seems to be about as effective as vancomycin.

The adaptability of the staphylococcus to its environment has been amply illustrated by its capacity to readily become resistant to almost all antibiotics, thus rendering the life of usefulness of new drugs to a very short period. For this reason, it is important to analyze the changing antibiotic resistance of the organisms isolated in hospitals. In comparing the data on staphylococcus antibiotic sensitivities obtained in our laboratory between 1955 and 1958 (9), we observed this changing spectrum of drug effectiveness. Little overall change was noted in the sensitivity to penicillin of staphylococci isolated from infected hospitalized patients between 1955 and 1958, although the number of strains susceptible to the drug has remained low. Similarly, little change has been seen in sensitivity of the strains to erythromycin, tetracycline, chloramphenicol, vancomycin, and oleandomycin; although, as pointed out before, except for vancomycin and possibly novobiocin, these antibiotics have little bactericidal effect upon the staphylococcus. Of interest is the fact that frequency of isolation of strains sensitive to novobiocin was greater in 1958 than in 1955, possibly, though not certainly, reflecting a low usage of this drug in the hospital.

Epidemiological control of infection in the hospital: If staphylococcal infection in the hospital is as we have defined it; namely, a problem involving specific groups of patients rather than the whole hospital population, our methods of control will have to be directed accordingly. The majority of the infections are in postoperative wounds; therefore, we must specifically direct our attention to that area. An indirect control measure is the institution of a surveillance program for detection of infections. As was illustrated in our own surveillance and as was similarly found at the Hospital of the University of Pennsylvania (8), such a surveillance of staphylococcal infection was associated with a decline in incidence of infection; and in our hospital, this decline was most noticeable on the surgical service. The education provided by the sur-

veillance and its corresponding increase in awareness of the problem of hospital infections will in most instances improve methods of control.

Although the mode of transmission of staphylococci important in leading to infection has not been precisely defined, certain outbreaks of surgical wound infections and in newborn nurseries have suggested that specific individuals with staphylococcal infection may be the important source of disease in patients. Such infected persons should be excluded from contact with patients in the operating room and from contact with highly susceptible patients, such as those with burns, exfoliative dermatitis, etc. Although personnel who are carriers of staphylococci, but not obviously infected, have been incriminated in epidemics of infection in newborn infants, this association has not been so clearly defined among other susceptible groups of patients. This association, however, suggests that control of carriers of staphylococci may be particularly important in handling patients most susceptible to infection, such as patients with burns or exfoliative dermatitis and newborn infants.

An obvious source of staphylococci in the hospital environment is the patient with a suppurative staphylococcal infection. All such patients should be isolated, and their dressings, bed clothes, gowns, and other such articles should be separately handled and sterilized. In examining these patients, the examiner should wear gloves covering the hands and a gown and mask.

Besides controlling the infected person and carriers of staphylococci as briefly outlined above, consideration has been given to means of cleaning the air, walls, floors, and ceilings of hospitals. The importance of these sources of staphylococci in the environment, however, is still sufficiently unknown to make unwarrantable any conclusions about air conditioning systems, paints, or other antiseptics. The best measures that can be suggested are cleanliness, using soap and water or detergents, and adequate ventilation of hospital facilities.

As mentioned before, prophylactic antibiotics cannot be relied upon to control staphylococcal infection. There is as yet no definitive

information, furthermore, to indicate that specific immunization will control infection with these bacteria. We have experimental observations at present, however, that suggest a further evaluation of staphylococcus toxoid (alpha hemolysin) may prove fruitful in providing a means of controlling *certain types* of staphylococcal infection (10).

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NEED FOR MORE EFFORTS IN TUBERCULOSIS CONTROL CITED

"Expanded and intensified efforts are needed in Maryland and Baltimore if we are to reduce our tuberculosis problem in Maryland." This statement was made after a recent joint meeting of the State Department of Health and the Maryland Tuberculosis Association. Perry F. Prather, M.D., director of the Maryland State Department of Health, and Mr. Lucien E. D. Gaudreau, president of the Maryland Tuberculosis Association, agreed that a great deal of work lies ahead for all concerned. Maryland stands sixth in the nation in the rate of deaths reported and eighth in the rate of cases reported. In both categories, Maryland exceeds the national average.

"We believe that this situation can be improved if our state agencies, along with the county health departments and county tuberculosis associations, renew all their efforts in expanding their programs of tuberculosis control," Dr. Prather continued. "The Health Department is legally charged with the control of tuberculosis; however, there are many areas in which the voluntary tuberculosis associations must function as a supplement to the official agency in providing services not now available from tax funds."

Mr. Gaudreau pointed out that the role of the tuberculosis association is one of assistance in providing service and of pioneering in demonstrating needed services. "Our two state agencies must work closely together if we are to even approach the goals set by the United States Public Health Service and the National Tuberculosis Association toward the eradication of tuberculosis as set forth in The Arden House Report on Tuberculosis Control in the United States, which provides us with real guide lines along which we can work.

"We are in business to help objectively, and look forward to a productive program developed through closer planning and working with the State Health Department," Mr. Gaudreau said.

Many factors help determine the final and total result achieved when a patient receives an anesthesia for an operation. Many of the seeds for this response rest in the preanesthetic condition and preparation, both physical and psychological. The impact and effect of an anesthesia are appreciable and are well recognized. Despite all precautions and care, certain postanesthetic sequelae and side effects inevitably accompany many anesthetics. When these are recognized and their fundamental nature and causes are understood, most of them can be easily and promptly managed. Thus we see that the chain of influencing factors begins before the operation, exerts its influence during the operative period, and carries on to affect the emergence from anesthesia and the convalescence from the operation. The integrated efforts of the several physicians caring for the patient during each phase of this sequence of events will contribute to the most complete picture and the best opportunity for an optimum result.

FACTORS INFLUENCING THE RESULTS OF ANESTHESIA

Otto C. Phillips, M.D., Alfred T. Nelson, M.D., and Thomas D. Graff, M.D.

THE TOTAL RESPONSE of a patient to an anesthetic experience is influenced by factors present during the preoperative period, by the management during the operative period, and by the immediate and long-range postanesthetic care. All of these facets must be considered if we are to obtain for the patient an optimum result.

The referring physician, oftentimes the patient's family doctor, is the one most familiar with the status of the patient prior to his operative adventure. Upon entering the realm of the hospital and of the surgical arena, the patient meets for the first time the anesthesiologist, who will play an important role in eventuating a satisfactory outcome for the overall hospital experience. After a brief convalescence as an inpatient, he then returns to the care of the referring physician, who must evaluate and interpret his

symptoms and responses in terms of the recent hospital interlude.

Complete communication between the referring physician, the surgeon, and the anesthesiologist leads to a continuing pattern of medical care and makes possible the most intelligent management of each phase of the patient's course.

Scope of the Realm of Anesthesiology

THE ANESTHESIOLOGIST is a consultant in the specialty of anesthesia. We should expect more of him than simply the management of the anesthetic in the operating room. He should be available for advice as to the preoperative preparation of the patient, and he should contribute to the solution of problems that arise during the postoperative period.

His training, interest, and experience have given him a basic understanding of the depressant

From the Anesthesiology Department, The Hospital for the Women of Maryland.

as well as of the stimulant drugs: their pharmacology, therapeutic application, and the management of complications associated with their use. He also knows how other drugs, how pre-existing disease, and how current problems affect the vital functions, as well as how they influence the effects of the anesthetic drugs.

The anesthesiologist has been referred to as a specialist in the field of applied pharmacology, assuming the responsibility for maintaining the constancy of the "milieu internal" of the patient during and after the operative intervention. An anesthetic experience is an interlude in the patient's life during which the anesthesiologist keeps him alive and pain-free while the underlying disease process is being surgically corrected.

Preoperative Evaluation of the Patient

AS ALREADY SUGGESTED, the anesthesiologist must assume an active role in supplementing the efforts of the patient's family physician and the surgeon with regard to the preoperative evaluation and preparation of the patient. In many instances, this may be merely a routine evaluation of an average patient about to undergo an uncomplicated operation. In such cases, the visit by the anesthesiologist the night before surgery serves essentially to establish rapport and to provide for preanesthetic sedation. Many patients, however, present problems of some magnitude, requiring the professional and technical understanding of the expert anesthesiologist, who, in turn, invites the help and cooperation of the surgeon and the referring physician. These problems may have a definite bearing on the successful outcome of the operation.

I. DRUGS

Frequently, the patient comes to the hospital for an operation following a period during which he has been treated with various drugs. A first and important step for the anesthesiologist is to learn the identity of the medication. It may be well for the patient to know the nature of his medication before he enters the hospital, for too often the anesthesiologist finds himself trying to guess the identity of the pink pills or yellow capsules shown him by the patient. Much time may be lost in tracking down the referring physi-

cian in order to identify what turns out to be a mild sedative or antacid, which will have no effect on the patient's anesthetic or operative course. In other instances, more potent and potentially dangerous drugs may be treated by the patient in an off-hand manner or, possibly, not even mentioned.

A. Steroids

Such a drug in this category is cortisone or one of its many modifications. The hazards of steroid therapy to the operative patient have recently become widely recognized (1, 2). The use of cortisone may lead to adrenal cortical atrophy, which, in the patient unsupported by continued or increased cortisone dosage, may result in the clinical picture of irreversible operative or post-operative shock. By good fortune, we occasionally stumble upon the information that a referring physician has discontinued long standing cortisone therapy because the patient is about to have surgery. On the contrary, the cortisone dosage should have been continued and preferably increased for several days before admission.

B. Tranquilizers

The sale of tranquilizers has increased fivefold since 1956, these drugs having largely supplanted the long-acting barbiturates in the treatment of psychoneurotic complaints. The majority of ataraxics, including the popular meprobamate derivative (Miltown® or Equanil®), have little or no effect upon the circulatory stability of the patient. On the other hand, the hypotensive side effects of some of the phenothiazine drugs, such as chlorpromazine (Thorazine®) and its derivatives (Sparine® and Compazine®), may, after prolonged use prior to operation, alter the response of the patient to various of the vasopressor drugs used at the operating table.

We do not recommend the elimination of such drugs from the referring physician's armamentarium, but we do urge that their usage be known and made a part of the patient's record. In this way, hypotension may be anticipated and more effectively combated by those drugs which remain effective in the presence of prolonged phenothiazine therapy.

Similar information should be provided when

antihypertensive drugs, such as reserpine, have been used. Since the adrenolytic action of these drugs ceases in about one to three weeks after withdrawal, it is preferable, when possible, to discontinue these drugs for several weeks prior to the anticipated date of the operation.

C. Insulin

When patients with chronic systemic or metabolic diseases have been well regulated to normal activity by the use of long continued medication, it is well to continue such medication while awaiting surgery. At the same time, it is desirable to admit such patients to the hospital several days prior to surgery, so that the effect of such medication can be evaluated. In the case of the diabetic patient, the type and dose of insulin, if used, should be known, so that increase or decrease in dosage, based upon serial urine and blood sugar analyses, may be made. In addition, the diabetic regime for the day of surgery should be understood and agreed upon by internist or referring physician and the anesthesiologist.

D. Digitalis Preparations

The cardiac patient supported by digitalis or quinidine should continue his medication, and the effects of such medication should be evaluated by careful clinical appraisal, as well as by a recent or an admission electrocardiogram. Delay of surgery is advisable for the elective patient in whom impending myocardial failure indicates a need for digitalization; rapid digitalization should be reserved for the emergency surgical patient (3). The patient who gives a history of angina with frequent use of nitrates for control of pain is fearful of a heart attack during operation and must be reassured that every step in the operative and anesthetic procedure will be done in such a way as to prevent an attack. For the most part, avoidance of hypoxia and hypotension during and after the operation should bring about a successful outcome.

E. Narcotics, Alcohol

Although in a somewhat different category from patients who have received medications for specific disease conditions, the patient who is ad-

dicted to narcotics, barbiturates, or alcohol presents a problem insofar as the preoperative, operative, and postoperative course is concerned. Withdrawal symptoms may present such a difficult situation that it is found necessary to continue the use of these drugs during the hospitalization, with gradual reduction in the dosage during the postoperative period. Almost invariably, this type of patient requires much greater amounts of the anesthetic agents to produce adequate anesthesia. Awareness of addiction may influence the choice of anesthesia, with greater emphasis on regional techniques or on the use of the more potent, though short acting, inhalation agents. Occasionally, addicted patients are also in a state of "chronic shock" due to malnutrition. Preoperatively, they must be prepared with high caloric, high protein, and high vitamin diets supplemented with parenteral vitamins and amino acids before, during, and after surgery. Such a patient may also benefit by preoperative blood transfusions. Unless a low blood volume is restored to normal, these patients may not compensate well to the sympathetic block and enlarged vascular bed produced by a spinal anesthesia.

F. The Epileptic Patient

The epileptic patient usually presents no problem when an operation becomes necessary. When possible, the prophylactic medication is continued until the time of surgery. Preanesthetic sedation and general anesthetic drugs then serve to supplement the other cortical suppressant regime. It is imperative to bear in mind that the phenothiazine antiemetic drugs (Thorazine®, Trilafon®, etc.) may precipitate an epileptic episode in a patient with this underlying disease pattern and should be avoided or used cautiously on a known epileptic.

G. The Myasthenic Patient

The patient with myasthenia gravis poses a serious problem when he becomes a candidate for a general anesthesia. He may become apneic with one-tenth to one-twentieth the usual relaxant dose of curare, and he is unduly responsive to any agent with curariform activity. Thus it is essential that the attending physicians in the hospital are aware of this situation and that they not only

avoid, if possible, any general agents with curare-like effect, but also that they continue the support of a prostigmine derivative equivalent to the needs prior to surgery and anesthesia.

II. HISTORY OF ALLERGIES OR UNTOWARD REACTIONS

During his preoperative visit, the anesthesiologist attempts to elicit from the patient information to aid him in his choice of agents and techniques. A careful past medical history must include possible drug allergies or untoward reactions, specifically covering those agents which may be used at some time during the present hospitalization. Knowledge of such an idiosyncrasy may prevent not only serious or possibly fatal reactions, but also those which are merely uncomfortable or annoying.

A. Antibiotics, Narcotics and Barbiturates

Most patients are aware of a previous allergic or untoward response to an antibiotic such as penicillin or one of the mycins, remembering well the rash or the diarrhea. Since such a wide choice of antibiotics is now available, it is usually possible, when one is needed, to choose an agent to which no side-effects have yet been demonstrated for the patient at hand. Since the trend appears to be away from the routine or shotgun usage of antibiotics, it is hoped that the frequency of allergic manifestations may diminish in the future.

Many patients will volunteer the information that a particular narcotic makes them nauseated. If so, it is well to substitute one of the many related or unrelated narcotic drugs, which are not as regularly used as they might be. In this day of morphine and meperidine (Demerol®), the benefits of dilaudid and pantopon, also opium derivatives, are frequently forgotten. Excitement has been caused in other patients through the use of barbiturates in the presence of pain. True anaphylactic response to sedatives is so extremely rare that the authors have never seen such a case. The history of pentothal incompatibility usually represents an unfortunate response to an inexperienced administration of the agent and does not constitute a legitimate reason to avoid use of the drug.

B. Local Anesthetics

Occasionally a patient will tell of an allergy to local anesthesia. Here, also, true anaphylactic response to local anesthetic agents is extremely rare. When it occurs, it is sudden and violent, resulting in cardiovascular and respiratory collapse, with or without convulsions. The usual description of slowly developing apprehension followed by drowsiness and unconsciousness is most commonly the result of the too rapid absorption of an overdose of the drug. Such a history does not contraindicate subsequent usage of local infiltration of the proper dose of a drug under conditions which preclude rapid absorption. Nor does it contraindicate the usage of spinal anesthesia. Often a history of extreme nervousness in the dental chair after a nerve block is the result of absorption of the vasoconstrictor used to control bleeding or to delay the absorption of the local anesthetic agent.

C. Contact Dermatitis

Another sensitivity reaction to consider is that of the contact dermatitis from the use of various antiseptics or from adhesive tape. Substitution of a non-irritating cleansing solution or of an antiseptic in another chemical group and the use of a Scotch® tape instead of adhesive may offer simple solutions for these patients. Close attention to the above seemingly minor problems may save a patient from the unbearable experience of having a diffuse and exfoliating dermatitis superimposed upon the many other discomforts associated with an operation.

D. Blood

A history of chill, fever, hives, or other untoward response to a blood transfusion should, except in a dire emergency, make mandatory a search for minor agglutinins by careful typing and complete crossmatching techniques as contrasted to the more rapid cold agglutinin methods.

III. AGE

The experience of the Baltimore Anesthesia Study Committee (4) reveals that the greatest

risk of death associated with anesthesia is assumed by the very old patient. Among patients 75 years and over, the anesthetic death rate is about 28 per 10,000 operations. This rate decreases at younger ages to a low of one anesthetic death per 10,000 operations in the age group 15 to 24; however, among children 15 and under, the rate increased to three per 10,000. The average overall anesthetic death rate was four deaths per 10,000 operations.

The patient's age per se, however, should never contraindicate operation or anesthesia, since delay may convert an elective procedure under optimum conditions into an emergency procedure under extremely unfavorable conditions. If operation is contemplated in the aged patient, he should be brought to the operating room in the best possible condition. Anesthesia should be tailored to provide a smooth but not too rapid induction with short-acting drugs which avoid a deep narcosis and from which the patient will respond quickly. Regional anesthesia is frequently beneficial and may be ideal, providing it produces total anesthesia of the areas involved and does not add to the patient's burdens by creating the apprehension and fear which accompany incomplete obliteration of pain and pressure stimuli. Overzealous administration of intravenous fluids, including blood, should be avoided lest a heart incapable of responding to a rapidly increasing workload should begin to decompensate.

The very young patient, particularly the infant, should also be most carefully prepared for operation, despite the fact that routine preoperative venaclysis and other technical procedures may be considered more difficult and bothersome in the small individual. In contradistinction to a frequent sphere of error in the aged patient, the infant in the operating room is more likely to receive too little supportive intravenous fluids. The margin of error is small in these tiny patients, and a seemingly trivial blood loss may actually constitute gross hemorrhage when viewed in proportion to the total blood volume. Our techniques for maintaining homeostasis are not yet perfect; thus, the shorter the period of time the infant is on the operating table, the less the likelihood that physiological aberrations will occur.

IV. SYSTEMIC PROBLEMS

A. Heart Disease

If a patient has coronary insufficiency or has had a coronary occlusion, a decision relating to an anesthetic and an operation is certainly influenced by the urgency of the anticipated procedure. After an occlusion, it is advisable to allow a period of two to six months to elapse so that optimum reparative processes will have occurred. Knowing that the patient he is managing has coronary artery disease, the anesthesiologist will use an anesthetic technique offering the best oxygenation and the least likelihood for even transient periods of hypotension. As previously indicated, if a patient has had some episodes of myocardial failure and has needed the support of a digitalis preparation during his everyday life, he certainly will benefit by such support during an operative procedure. It is, thus, most imperative that information relating to his digitalization be forwarded to the attending physicians in the hospital, so that this support will not be withdrawn when most needed. Also, knowledge of previous or borderline myocardial failure will forwarn the anesthesiologist and the surgeon to avoid, if possible, the use of positions such as extreme Trendelenburg or lithotomy, which would put an additional strain upon the heart.

B. Respiratory

The decision as to whether or not to proceed with an operation while a patient has a respiratory infection is one which frequently arises. Here, as always, the urgency of the situation helps influence our decision. In anticipation of an elective procedure, a subsiding respiratory infection with mild, lingering, residual symptoms usually will not be sufficient indication for delaying the plans. If suggestive symptoms of an early respiratory infection are present, the decision may be more difficult. It is possible that a transient rhinitis or pharyngitis may disappear within a day or two. There is always a chance, however, that a more serious upper and lower respiratory infection may be incubating and that the maximum intensity might coincide with the

early postoperative period. Frequently a patient in this category may be most safely managed by simply watching the progress of the symptoms for 24 hours.

Contrary to many prevailing beliefs, no single agent is the best or the worst for the asthmatic patient. If at the time of surgery the patient should happen to be in the midst of an acute asthmatic attack, only the direst emergency should cause any anesthetic to be considered. If at the time his asthmatic state is quiescent, the patient will probably respond well to the proper management of most of the anesthetic agents and techniques. Although many asthmatic states are based on some type of allergy, true allergies to the general anesthetic agents are almost unheard of. Also worth considering is the fact that no local anesthetic agent has ever been demonstrated to cause a systemic allergic response when injected into the subarachnoid space for a spinal anesthesia. Patients with chronic lung disease have been made considerably better candidates in recent years through the utilization of a preparatory period of antibiotics, bronchodilators, and positional drainage. Even for minor procedures, they may be offered optimum chances for an uncomplicated postoperative course by taking such preparations and precautions.

C. Hepatic Disease

A patient with serious liver disease is a poor candidate for anesthesia, since many agents used for analgesia and anesthesia are detoxified by the liver. Whenever possible, some conduction type of anesthesia with minimal absorption into the systemic circulation should be considered. Certainly minimal amounts of the barbiturates and opiates are recommended. Of the inhalation agents, cyclopropane, nitrous oxide, and ethylene have been shown, clinically as well as experimentally, to have a minimal effect on the liver. Patients in this category tolerate hypoxia poorly; and if inadequate oxygenation is combined with agents such as chloroform, diethyl ether, or divinyl ether, acute hepatic failure may result.

D. Kidney Disease

All major anesthetic techniques except spinal

anesthesia temporarily suppress kidney function to some degree. A spinal block does not improve kidney function, as is traditionally cited; it simply does not depress function as do the general anesthetic agents, so long as the blood pressure remains stable (5). Irregularities in cardiac rate and rhythm have frequently been demonstrated in the uremic patient, which have been shown to be caused by an increase in the concentration of serum potassium. Under these circumstances, the incidence of cardiac complications is higher when cyclopropane is the primary agent than when regional anesthesia or thiopental sodium is used (6).

E. Endocrine Function

The most acute problems involving the endocrine system and influencing our anesthetic management are related to the thyroid gland and to the adrenal gland (7). The patient suffering from hyperthyroidism has increased demands for oxygen, occasionally beyond the realm of fulfillment. The surgical management of the patient with a toxic thyroid gland has changed dramatically during the past 15 years. Drugs are now available which can suppress thyroid activity, so that the necessity for operating on a patient with hyperthyroidism is at the present time hardly existent. It takes time for these drugs to bring the basal metabolic rate toward a normal range, which time can be spent by the patient just as effectively at home as in the hospital. A patient with hyperthyroidism and scheduled for a thyroidectomy almost always will be sent home for proper preparation by the enlightened surgeon and anesthesiologist.

Although already pointed out, the increasing awareness during the past decade of the importance of the adrenal cortex as related to anesthesia merits re-emphasis. The adrenal cortex helps the patient to withstand the stress of severe and serious illnesses, accidents, and operations. Under two principal types of circumstances adrenal cortical activity can be inadequate. After a serious and prolonged debilitating illness, the demands on the glands may lead to adrenal cortical exhaustion. In addition, the therapeutic use of cortisone may lead to adrenal cortical suppression. The American Medical Association and the Federal Food and Drug Administration

now approve the use of cortisone for several dozen specific disease entities. In one series of 2,490 surgical patients, 140 or 5.6 per cent had had cortisone at some time prior to the operation (8). We should ever keep in mind that in the patient who may have cortical depression due to either cortisone therapy or undue stress, it is mandatory to fortify the patient's own cortisone production with supplementary cortisone before, during, and after even the most minor operations.

Pheochromocytoma is one of the causes of severe arterial hypertension. If unrecognized before and during surgery, this entity may lead to drastic and uncontrollable episodes of hypertension during anesthesia with possible residual sequelae. The management of these patients may be complex. The principal contribution of the physician referring a hypertensive patient is a comprehensive preoperative work-up with the designation of the etiological basis of the hypertensive status. This will assure us that the patient with pheochromocytoma will not be offered to the unsuspecting surgeon and anesthesiologist as a benign essential hypertension.

F. Obesity

Obesity is recognized in both medical and surgical circles as akin to a disease itself. The influence of overweight on an increased incidence of cardiovascular diseases has been repeatedly demonstrated. In addition, as Lillington has so well pointed out, "Obesity may lead to alveolar hypoventilation, arterial hypoxemia, and hypercapnia, which, in turn, may produce secondary polycythemia, somnolence, pulmonary hypertension, and right heart failure" (9). Unless an operative procedure is life-saving, there remains little doubt but that the risk to the patient will be reduced concomitantly with his weight loss.

G. Hematological Disorders

The hemoglobin of the blood is the agent responsible for transporting oxygen from the lung-field to the various tissues of the body. Since inadequate oxygenation causes many of the adverse reactions and sequelae to anesthesia, the

anemic patient is particularly vulnerable to other superimposed types of anoxia (respiratory, stagnant). It is imperative, if at all possible, to raise the level of hemoglobin to 10 grams per cent or more before the operation, either through the use of iron preparations or by whole blood transfusions if necessary. In a patient with sickle cell anemia, a crisis may be precipitated by a short bout of anoxia. A sickling test should, therefore, be carried out on all Negro patients, so that the condition will be recognized in advance (10). In the presence of this entity, it is obviously imperative to use the anesthetic technique that will best assure continuously adequate oxygenation.

If a patient has or has had pernicious anemia, we must be aware that, even though treated, spinal cord lesions may be present. It is, therefore, perhaps wise to avoid, when possible, a spinal anesthesia (11).

H. Gastrointestinal Complications

Aspiration of vomitus remains one of our reliable contributors to anesthetic mortality. This hazard is ever present in most emergency operations, into which realm practically all obstetrical procedures must fall. After the occurrence of any painful situation, such as a fractured arm, abdominal discomfort, or the onset of labor, gastric emptying is inhibited or entirely stopped. Thus we must assume that the patient who has eaten within six hours of the time of the situation requiring an anesthesia still has food and fluids in his stomach. During the induction or emergence from a general anesthesia, the patient is, therefore, a potential candidate for regurgitation and aspiration of stomach contents. When possible, some type of regional anesthesia, such as a nerve block or spinal, will minimize this hazard. The alternate choice may be that of an endotracheal intubation prior to the induction of anesthesia. A referring doctor can aid tremendously in the conditioning of the patient with regard to this set of phenomena when an emergency procedure seems imminent. Re-education of the patient after arrival in the hospital may be difficult if he has been assured by his attending physician that he will be given a general anesthesia regardless of the circumstances.



*attains
sustains
retains*

*extra
antibiotic
activity*

DECL

*attains activity
levels promptly*

DECLOMYCIN Demethylchlortetracycline attains — usually within two hours—blood levels more than adequate to suppress susceptible pathogens—on daily dosages substantially lower than those required to elicit antibiotic activity of comparable intensity with other tetracyclines. The average, effective, adult daily dose of other tetracyclines is 1 Gm. With DECLOMYCIN, it is only 600 mg.

*sustains activity
levels evenly*

DECLOMYCIN Demethylchlortetracycline sustains activity levels through the entire therapeutic course, the high activity levels needed to control the primary infection and to check secondary infection at the original—or another—site. This combined action is usually sustained without the pronounced hour-to-hour, dose-to-dose, peak-and-valley fluctuations which characterize other tetracyclines.

TETRACYCLINE
ACTIVITY
WITH
DECLOMYCIN
THERAPY

DOSEAGE
150 mg. q.i.d.

TETRACYCLINE
ACTIVITY
WITH OTHER
TETRACYCLINE
THERAPY

DOSEAGE
250 mg. q.i.d.

DECLOMYCIN—SUSTAINED ACTIVITY LEVELS

OTHER TETRACYCLINES—PEAKS AND VALLEYS

POSITIVE ANTIBACTERIAL ACTION

PROTECTION AGAINST PROBLEM PATHOGENS

DECLOMYCIN[®]

DEMETHYLCHLORTETRACYCLINE LEDERLE

*retains activity
levels 24-48 hrs.*

DECLOMYCIN Demethylchlortetracycline retains activity levels up to 48 hours after the last dose is given. At least a full, extra day of positive action may thus be confidently expected. The average, daily adult dosage for the average infection—1 capsule q.i.d.—is the same as with other tetracyclines...but **total** dosage is lower and duration of action is longer.

CAPSULES, 150 mg., bottles of 16 and 100. **Dosage:** Average infections—1 capsule four times daily. Severe infections—Initial dose of 2 capsules, then 1 capsule every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. **Dosage:** 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into 4 doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored), bottles of 2 and 16 fl. oz. **Dosage:** 3 to 6 mg. per pound body weight per day—divided into 4 doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

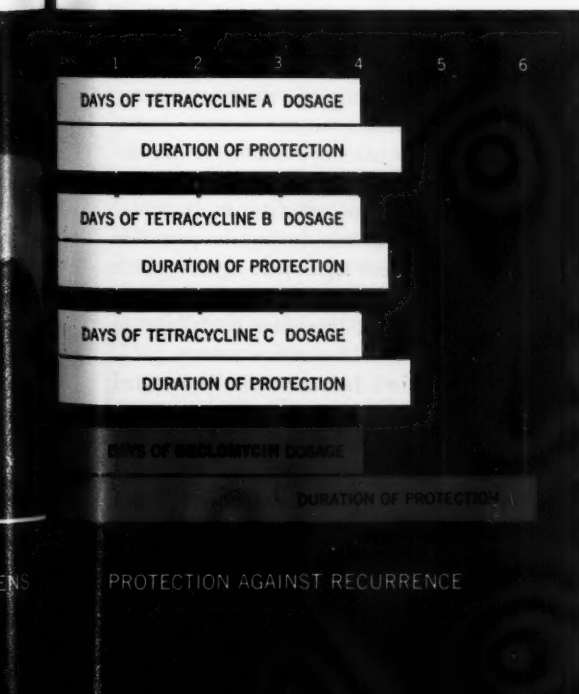
Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under constant observation.

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V. ORIENTATION OF PATIENT

Concluding his evaluation of the patient by review of the history, physical examination, and laboratory reports, by conversation with the patient, and by indicated partial physical examination, the anesthesiologist should discuss with the patient the anesthesia he is to receive. Usually the anesthesiologist has by this time decided upon the safest and most adequate anesthesia, and he should tell the patient his choice immediately. If the patient questions the decision, detailed and logical reasons should be forthcoming. After a calm and leisurely explanation, most intelligent patients will acquiesce to the decisions of the physicians into whose hands has been placed their welfare. At no time should the more controversial types of anesthesia be disguised by terms which leave the patient in doubt or which may lead him to believe that a more popular type of anesthesia is to be given, when such is not actually to be the case.

Should the possibility exist that the type of anesthesia is subject to change, depending upon various uncertain factors, this fact should be communicated to the patient and the several possibilities discussed. As already indicated with regard to emergency procedures, the task of the anesthesiologist in determining the anesthetic agent and technique best suited to an individual patient is made more difficult if the patient has been promised by his surgeon or referring physician that he will or will not receive a particular anesthetic or technique.

At this time, the patient may also wish to discuss finances. If this be his desire, the position of the anesthesiologist should be made clear, and the probable charges may be specifically outlined whenever possible. If the patient does not broach the subject, it would appear to us to be a bit commercial for the anesthesiologist to emphasize the importance of this facet of his visit at a time when other problems are certainly uppermost in the patient's mind. It would seem advisable that the patient be informed about the anesthesia service before his arrival at the hospital by either his surgeon or family physician and by routine preadmission literature from the hospital. Whether a separate billing will be made by an anesthesiologist or whether this charge will ap-

pear as an item on the total hospital bill will be determined by the individual hospital anesthesiology staff situation. Such an expense should not, however, be allowed to appear as an unpleasant surprise to the patient.

Postoperative Sequelae

POSTOPERATIVELY, PATIENTS should first be sent to a recovery room, where they remain until pulse and blood pressure are stable, respirations and airway adequate, reflexes active, and usually until they are completely conscious. In a review of 1,024 postsurgical fatalities in Baltimore City (4), 50 per cent of the deaths ascribed to anesthetic management had occurred within six hours after the operation. Forty-eight per cent of those patients in whom anesthesia contributed to the outcome died in their rooms, while only 14 per cent died in a recovery room. The recovery rooms are fully equipped with resuscitative equipment and drugs and are staffed by nurses assigned and trained specifically for that area. Despite all efforts to keep the side-effects of surgery and anesthesia at a minimum, it is inevitable that these will continue to occur. It is important to recognize the principal postoperative sequelae and to understand their etiology and treatment.

I. NAUSEA

Nausea and vomiting during the immediate postoperative period are frequently due either to the preoperative medication or to the anesthetic drugs. The incidence is, however, considerably influenced by the site of the operative procedure; thus, appreciably more nausea follows intraperitoneal procedures than operations on the extremities, for instance. Some degree of nausea and vomiting is to be expected after most operations. We have had available during the past few years increasingly potent antiemetic agents which may materially reduce the incidence of this post-anesthetic side-effect and therefore contribute to a reasonably pleasant postoperative course (12). We must bear in mind, however, that protracted retching after the first 24 hours postoperatively is not normal, and its occurrence might suggest some surgical complication, such as intestinal obstruction. Since our potent antiemetic drugs

so greatly reduce the associated symptoms of nausea and vomiting and thereby mask the underlying situation, if nausea and vomiting persist beyond the first day, we should consider an underlying cause rather than a treatment of the symptom.

II. PAIN

Pain is a normal accompaniment to tissue trauma, surgical or otherwise. We certainly wish to make our patients as comfortable as possible, and the opiate drugs remain our best agents for relieving postoperative pain. These are not without side-effects, however, and a certain incidence of nausea and vomiting will accompany their use. The injudicious use of morphine or demerol extended into the postoperative period may not only lead to persistent episodes of retching, but can also result in significant depression of circulatory and respiratory function. We would do well to have the patient understand that some pain will be experienced during his early postoperative period. Conservative use of the opiates will offer some pain relief without unduly prolonging the convalescing period.

III. NEUROSKELETAL SYMPTOMS

Patients frequently suffer from postoperative neurological symptoms not specifically related to the part of the body operated upon. Thus, nerve damage may result from improper positioning, from nerve blocks with neurotoxic anesthetic agents, or from commonly used intramuscular preparations inadvertently injected into or around nerve trunks. It is important to attribute these symptoms to the proper underlying factors and not automatically to assume that each symptom has a single origin. Weakness or numbness in a leg are occasional untoward residual findings after a spinal anesthesia. Many dozens of cases are cited in the literature in which spinal anesthesia was not used, yet pressure on nerves from packs within the pelvis or from the descent of the head of the fetus through the birth canal produced pictures identical to those resulting from a spinal. It is most desirable to reconstruct the entire surgical or obstetrical experience before identifying for the patient the etiological factor.

With the increasing use of the phenothiazine

drugs (Trilafon,[®] Thorazine,[®] etc.) more frequent side-effects of these anti-emetics are appearing. Mild to severe extrapyramidal (Parkinson's) manifestations may be evident, and, occasionally, even convulsive seizures. Similar clinical pictures may possibly appear postoperatively in an epileptic patient, following a period of cerebral anoxia during or after an anesthetic, or from the hypoglycemic shock in a treated diabetic whose caloric intake during the anesthetic period has been inadequate to utilize a long-acting insulin preparation given preoperatively. If caused by a phenothiazine drug, these symptoms are transient and are relieved with the use of a barbiturate and by discontinuing or reducing the phenothiazine therapy. Here again we see the importance of identifying the cause before offering an explanation and treatment.

Many patients suffer from headaches during the early postoperative period. The incidence is about the same whether the patients receive a general or spinal anesthesia, though the severity is greater with the latter. The postlumbar puncture headache is due to a lowered cerebro-spinal fluid pressure, being present only when the patient is in the upright position and relieved by lying down. This simple test can readily differentiate the "spinal headache" from other types.

IV. RESPIRATORY COMPLICATIONS

Twenty years ago, major postanesthetic respiratory complications, such as atelectasis, lung abscess, and pneumonia, occurred with sufficient frequency to be subjects of nearly every day's discussion in a busy surgical hospital. At the present time, these are among our unexpected and unanticipated morbidities. A meticulously clean airway, adequate ventilation during the anesthetic and postanesthetic periods, and the return of active reflexes at the termination of the operation are factors that are contributing to the marked diminution of serious respiratory sequelae.

Increasing use of the endotracheal airway during the past two decades has contributed tremendously to the safety of many anesthetics. It is not unusual, however, after an endotracheal anesthesia, for the patient to have some sense of hoarseness and an increased amount of mucus in and around the trachea and larynx. No specific

treatment is usually necessary, although, as with any type of laryngitis, the patient will benefit by resting his voice and by keeping the throat moist with gargles and lozenges. It is of course possible, though rare, for more serious damage to the larynx to occur. If severe or persistent discomfort in the area of the larynx occurs post-anesthetically, the patient should be seen promptly by an otolaryngologist for a definite diagnosis and therapy.

V. CARDIOVASCULAR DISORDERS

Hypotension is one of the most frequent and disturbing symptoms seen during the immediate postanesthetic period. This may be due to the preoperative and anesthetic drugs, to inadequate blood volume associated with surgical blood loss, to myocardial failure, or to adrenocortical exhaustion. Many times, the diagnoses as to the cause of hypotension are easily made. On other occasions, only through an evaluation of the pre-anesthetic history, the operative and anesthetic course, and a clinical and laboratory evaluation of the present status can the cause of hypotension be ascertained. Treatment, when possible, should be directed at correcting the underlying physiologic aberration, not merely at raising the blood pressure. Thus, the answer to a low blood volume is an intravenous blood transfusion, and the solution to a peripheral dilatation following the administration of an opiate may be the use of a sympathomimetic drug. A vasopressor drug may temporarily correct the hypotension associated with myocardial failure, but the added burden on the heart may well lead to disaster if the underlying deficiency is not corrected.

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INTERNAL MEDICINE MEETING

The first joint meeting for 1961 of the Section of Internal Medicine of the Baltimore City Medical Society and the Maryland Society of Internal Medicine will be held Monday, March 20, at 8:15 p.m. in Osler Hall, 1211 Cathedral Street.

HERBERT G. LANGFORD, M.D.
Associate Professor of Medicine
and Chief of the Endocrine and Hypertension
Division
University of Mississippi School of Medicine
Jackson, Mississippi

will speak on

AN INVESTIGATOR'S VIEW OF CLINICAL HYPERTENSION

JOHN EAGER HOWARD, M.D.
Professor of Medicine
The Johns Hopkins University School
of Medicine
SAMUEL T. R. REVELL, M.D.
Professor of Medicine
and Head of Division of Hypertension—
Renal Disease
University of Maryland School of Medicine
Discussants

Questions and Answers

The Section of Internal Medicine of the Baltimore City Medical Society will hold its annual business meeting and election of officers after the scientific program.

A CENTURY OF HOSPITAL PROGRESS

William Schuman, M.D.

ALTHOUGH I MYSELF am not a member of the Maryland Academy of General Practice, on behalf of that organization, under whose auspices this meeting is being held, I wish to welcome you to North Charles General Hospital. This hospital is indeed proud to have been invited to serve as host to the Academy, an honor which is usually given exclusively to the large teaching institutions: the University and the Johns Hopkins Hospitals in Baltimore. North Charles General Hospital also takes pride in the fact that the [former] president of the Maryland Academy of General Practice, Dr. Walter A. Anderson, is chief of the Department of General Practice of this hospital, a position he has held since 1952.

This week is Hospital Week, formerly observed on May 12 as Hospital Day, because it commemorates the birthday of Florence Nightingale. It has special significance this year, being the one hundredth anniversary of the founding, by her, of the first nurse's training school at St. Thomas' Hospital in London. Not only did this

event inaugurate a revolution in the nursing care of civilian patients (a follow-up of her courageous crusade among the military wounded in the Crimean War), but also it represents the start of a new period in the history of hospital administration. If one compares the environment of the average patient of a London hospital in the two centuries 1760-1860 and 1860-1960, we see the contrast between a scene of bedlam, filth, and stench (a veritable market place) and one of dignity, orderliness, cleanliness, and quiet. John and William Hunter and their contemporary colleagues took for granted the disorder of St. Bart's of London, with its disorganized traffic, including quacks, hucksters, and harlots, crowding the corridors and wards. They had no interest in the institution other than as a place to teach and to meet with the physicians and surgeons who came as students to learn from the great masters of their day. It took the nursing profession, inspired by Florence Nightingale, to bring order out of chaos in the administration of hospitals, while the medical profession for a long time remained in the spectator role.

In this country, it was not until the American College of Surgeons began a program of hospital approval in the early part of this century that the medical profession seriously entered the business of properly organizing our hospitals. The most recent national effort toward hospital improvement and standardization has been the Joint Committee on Accreditation of Hospitals, to which can be added various specialty review committees under the Council on Education and Hospitals of the A.M.A. Today, hospital standardization is on a firm basis, albeit very controversial. With the widespread development of Blue

Cross and other insurance programs, hospital beds are in great demand; and there has been a recent wave of new hospital construction. The providing of medical, nursing, and auxiliary personnel for the many enlarged hospitals is one of the great problems facing the entire American community.

As our medical institutions enlarge and develop, as medical and surgical techniques become more complicated, and as shortages in personnel continue to handicap us, new devices must be sought to solve the stupendous problems facing our hospitals. Old concepts of patient care must give way to newer ones, and new hospital construction must allow for these changes. Under modern methods of patient care, the medical and resident staffs must assume a role more and more intricately woven into the fabric of the hospital organization. The foreign medical graduate has injected a new problem into all this, having made only more complex the burden of medical education that hospitals are sharing with the medical schools. Today, a century after Florence Nightingale, it will take much more than the personal crusade of a single "Lady with a Lamp" to revolutionize patient care in our hospitals. It will require the combined efforts of the medical and nursing professions, hospital administrative organizations, hospital lay-boards, Blue Cross or-

ganizations, community hospital councils, and the public to solve the many-faceted problems in today's complex hospital organization.

"The Hospital Environment" is the theme of today's program. This afternoon we discussed the patient in this environment and heard how we as physicians can prevent and overcome the dangers to which a patient is subjected on entering a hospital. Tonight we are to take a look at the other side of the coin—"The Doctor in the Hospital Environment." Does the doctor, like the patient, have to be insulated against the hazards and pitfalls of the hospital atmosphere? Does the doctor, on becoming a member of the visiting staff of a hospital, have to "gird up his loins" and be on the defensive to protect his interests? Is the physician a Dr. Jekyll and Mr. Hyde—one in his private office, and the other in the hospital rooms and corridors? Does the doctor use his staff membership to further his private gain and prestige? Is the average doctor fulfilling the traditional Hippocratic obligation to teach the young physician? Are fulltime physicians to assume the entire responsibility in the medical organization of tomorrow's hospital? These are some of the questions we may ask or hear discussed this evening by a distinguished and carefully selected panel, all of whom are actively engaged in the pursuit of solving hospital problems, each in his own way.

Highlights of the Evening Session

Conrad B. Acton, M.D.

WILLIAM SCHUMAN, M.D., and Walter A. Anderson, M.D., of the North Charles General Hospital, are to be commended for the excellence of the Postgraduate Day they planned and offered to the Maryland Academy of General Practice on Thursday, May 12. The second half of their program, the evening session, dealt with the "Doctor in the Hospital Environment." The assembly was held in the hospital's pine-paneled cafeteria, where Dr. Schuman welcomed the members of the Academy and guests. He previewed the plan of the program, highlighting Hospital Week for members of the Maryland Academy of General Practice. Noting that it was a far cry from a hundred years ago, when Florence Nightingale began to clean the pest houses in Europe,

to the present time, when here in Baltimore Dr. Walter Anderson can be at the same time president of the Maryland Academy of General Practice and chief of the general practice service of the North Charles General Hospital. The complexity of the modern hospital and its problems and of the groups involved in solving them had mounted in almost geometric progression through those hundred years.

The Maryland Academy of General Practice acknowledges and appreciates the reportorial contribution made by Conrad Acton, M.D., in summarizing the topics presented at the evening session.

First speaker on the panel was Reid Edwards, M.D., professor of surgery, University of Maryland Medical School, and chairman of the Joint Committee on the Use of Hospital Facilities. Dr. Edwards directed attention to the problems of controlling hospital admissions under insurance programs. His own career in medicine has spanned the era from when there was no insurance, through the entering wedge of workmen's compensation, to the present time when more than 50 per cent of hospital patients carry some sort of insurance and when everyone, whether he has insurance or not, is insurance-conscious. Frequently, he said, patients demand that hospitals be used for health care because insurance is available. The doctor, according to his judgment, should decide the methods of treatment which offer the best hope of success AND the least monetary cost in each individual case. Admitting patients to a hospital for procedures that can be done outside necessarily increases the cost to all. That this has been done there is no question, in Dr. Edwards' opinion, which led to the legislative investigation when the Blue Cross requested increased rates. The legislative investigation noted an occasional abuse of the Blue Plan coverage. Dr. Edwards recommended that corruption in the use of the plan be investigated in the hospital against which the accusation is brought. Committees do investigate the use of the insurance in many hospitals, and a final report on this matter is due soon, he said. Whatever we may think of insurance, it is here to stay. In Dr. Edwards' opinion, local policing should suffice. A member of the hospital staff, brought on the carpet before the chief once or twice, should either mend his ways or be denied privileges.

The second speaker was Judge Joseph Sherbow, president of the Board of Directors of Sinai Hospital and legal counsel for the Hospital Council of Maryland, Inc. He took as his topic "The Medical Staff and the Governing Board in the Administration of the Community Hospital." The only layman on the panel, Judge Sherbow regarded community interests in the hospital as of paramount importance. He sees the operation of a hospital like a three-legged table: the medical staff and the administrative staff, both having responsibility for the health care of the patient, and the trustees, being entrusted with the legal and community care. The rights, liabilities, and

responsibilities of each of the three supporting legs were to be guarded and protected. Contact among these three branches of control should be close and friendly. "When you have to look at your charter, you're in trouble," he noted. According to Maryland law, the Board of Trustees has always had power to appoint and discharge the staff. It has been long-standing policy of Maryland courts not to interfere with the internal management of any corporation. The basic and best division of interest, Judge Sherbow believes, is when the physician is responsible for the *individual* patient and the Board of Trustees responsible for *all* the patients. Administrators must take a broader social view than used to be necessary. In these ways hospital management is going ahead. There should be no improper domination of one of the three groups by the other. Channels of communication must be kept open and used freely. "As long as you keep talking, you don't fight," he declared.

Russell A. Nelson, M.D., medical director of the Johns Hopkins Hospital and president of the American Hospital Association, discussed the role of the physician in hospital operation planning. Speaking from his experience with big hospitals, he frankly admitted that he was not qualified to speak authoritatively for small hospital administrators, although he was sure that problems are essentially the same everywhere. He observed that these are momentous times and that if something isn't done by "us," we will lose the chance to do it. Among the major problems facing us is the fact of the Blue Cross partnership. Blue Cross enrollment is not as avid as it was and is apparently losing out to indemnity types of insurance. Some of this loss, he felt, was because of failure to increase benefits; a second cause was that the employee working conditions in many areas were inadequate. A third problem is the care of the aged, whose financial resources are less.

Regarding physicians in the hospital, many anticipated changes are expected to occur in the professional sphere rather than in the ancillary services such as custodial, dietary, housekeeping, and maintenance. Dr. Nelson expressed his approval of physicians serving on Boards of Trustees. Although this may have seemed a divergent view to many people who oppose it, he noted that where it was the custom it had worked well.

Medical staffs should be brought closer into administrative staff activity. The old relation of attending physician, resident physician, etc., he finds rapidly becoming outmoded.

Dr. Nelson sketched points in a program to take advantage of opportunities now present. Physicians should work in only one department of the hospital. The Board of Trustees should appoint the chiefs of departments and not let such appointments be made, for reasons of expediency, within the department. The organization should be quasi-democratic; for instance, the executive board should be broadened to include nurses and the ancillary-discipline chiefs. The professional services, he said, should audit themselves as to the quality of the care shown in the records. He further recommended a Joint-Conference Committee to help—but not replace—the Board of Trustees and the Staff Executive Committee.

He asserted that radiologists and pathologists should be treated as medical doctors by the hospitals and each should deal fairly with the other. He found greatly differing ratios and schemes of payment between hospitals and the "technical practitioners," and felt that the differences could be worked out wherever people sit down to negotiate in good faith, the basic formula being "neither is to dominate."

The final speaker on the panel was Leroy E. Bates, M.D., medical director of the Union Memorial Hospital and chairman of the Conference on Problems and the Issues in Graduate Education in the Community Hospital. Dr. Bates commented on the pending house staff shortage and the anticipated impact on the visiting staffs of the smaller hospitals. The shortage of foreign interns, due to requirements for certification in the educational programs, is a very real problem, although the suspense date has been moved to December 31, 1960. Dr. Bates reviewed various measures that might be taken to offset the shortage of manpower: interns "should be treated as persons"; trained physicians might be employed; medical students might be employed; administrators might be employed to relieve physicians of non-medical chores.

Forecasting for the future, he foresaw the burden falling on the attending physician both financially and personally. Perhaps salaried physicians were the answer to the hospital. Teaching affiliation, where they could get it, was

thought advisable by many hospitals to obtain house officer coverage. Technicians might be trained to perform such tasks as taking histories and record-keeping, heretofore considered to be beyond their scope. Elaboration of hospital features, such as facilities for dictating and for laboratory work, might be sought so that the available manpower will go as far as possible; for, in truth, an intern shortage is coming. If the hospital is big enough to offer enough training, it will get the interns, while smaller hospitals will be hard hit by the shortage.

Among the interesting questions put to the panel during the question and answer period was one calling for a definition of "abuse of insurance." It seemed to boil down to the fact that insurance will not cover diagnoses. Any procedure that is considered purely diagnostic, as against a guide to effectiveness of treatment, is technically abuse. (Everybody needs a diagnosis; it cannot be insured against. Thus the great divide between medical thinking and insurance thinking in the Plans).

Failure of the Blue Cross to inform the subscriber of limitations in benefits was stated by two panel members to be a key feature in the insurance problem. It was declared—emphatically—that the situation in which a physician has told a patient the Blue Cross plans do not cover diagnosis or checkups and the patient then listens to promotional advertising on the radio encouraging people to use their Blue Cross coverage whenever they need health care, is a considerable one. The Blue Cross and the Blue Shield should be severely taken to task for letting such a situation arise.

Judge Sherbow mentioned the "under-use" of hospital facilities. Having operating rooms, special diagnostic areas, and other facilities available in a hospital, but used only part of the time, was one of the reasons for the relatively high cost of hospital care. He noted that the federal institution of the eight-hour day, particularly as applied to technicians and to physicians in federal medical installations, has been spreading its philosophy to civilian hospitals, so that it is extremely difficult to get any special work done over weekends or outside the usual eight-hour day. Yet the facilities are there, capable of being used and of adding to the general increase in hospital revenues.

COMPONENT MEDICAL SOCIETIES



ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.

Journal Representative

NEW OFFICERS



Martin M. Rothstein, M.D.

G. Overton Himmelwright, M.D.

George M. Simons, M.D.

Thomas F. Lewis, M.D.

George M. Simons, M.D., of Cumberland, has been elected president of the Allegany-Garrett County Medical Society for 1961. Elected vice president is G. Overton Himmelwright, M.D., of Cumberland; secretary, Thomas F. Lewis, M.D., Cumberland; and treasurer, Martin M. Rothstein, M.D., of Frostburg.

Only those are fit to live who do not fear to die; and none are fit to die who have shrunk from the joy of life.

—Theodore Roosevelt

BLOOD BANK COLLECTION AT PITTSBURGH PLATE GLASS PLANT



Abdul S. Hashim, M.D., (in photo on left) Cumberland pediatrician, recently was medical consultant for the Red Cross blood bank collection at the Pittsburgh Plate Glass Company in Cumberland. Mrs. Elizabeth Weisman, wife of S. G. Weisman, M.D., assisted.



W. R. WOLVERTON OPENS OFFICE IN CUMBERLAND

William Roger Wolverton, M.D., son of Dr. and Mrs. James H. Wolverton, Sr., and a brother of James H. Wolverton, Jr., M.D., all of Piedmont, West Virginia, has opened an office at 140 Bedford Street, Cumberland, for the practice of orthopedic surgery.

A graduate of Potomac State College, West Virginia University, and the University of Maryland School of Medicine (Class of 1952), Dr. Wolverton interned and served his residency at Charleston, W. Va. General Hospital and Carraway Methodist Hospital, Birmingham, Alabama. For the past year, he practiced orthopedic surgery at Preston Memorial Hospital, Kingwood, West Virginia, and was consultant surgeon at Grafton City Hospital and Hopemont Sanitarium, Terra Alta, West Virginia.

He is married to the former Geraldine Reed, daughter of State Senator and Mrs. A. L. Reed,

Fellowship, West Virginia. They have two daughters.

PERSONALS

Louis M. Glick, M.D., of Cumberland, has been appointed to the teaching staff of the West Virginia University Medical School. He will teach there two days a week while retaining his practice in Cumberland. Dr. Glick formerly was a member of the faculty of Georgetown University, Washington, D. C.

Martin M. Rothstein, M.D., Frostburg, left for a three weeks tour of duty with MEDICO on the island of Haiti. Going inland by native transportation, he will conduct clinics and assist Hilda Jane Walters, M.D., another Frostburg physician who is serving with MEDICO, in surgery.

It is required of a man that he should take part in the actions . . . of his time, at the peril of being judged not to have lived.

BALTIMORE CITY MEDICAL SOCIETY

CONRAD ACTON, M.D.

Journal Representative



The annual business meeting was held on Friday, December 2, in the great hall of the Greek Orthodox Church. After the reading of the minutes of the previous meeting, **President Everett Diggs, M.D.**, called our attention to the action at the previous meeting limiting attendance at business meetings to active members. This action is contrary to the constitution. At his suggestion, the word *active* was deleted from the record, and the minutes were then approved.

A list of new members was voted on. There was some confusion about procedure among those new to the meetings. For the benefit of others who come infrequently, the list of proposed members is mimeographed and placed on the chair seats. In voting, to elect all of them, one writes

approved and his own name across this mimeographed list and forwards the folded paper to the teller. If any individuals are objected to, these names are crossed off on the ballot. The purpose of signing one's name is to determine eligibility to vote. Perhaps in time a secret procedure will be developed for this type of ballot.

President Diggs began the annual reports of officers and committees by expressing his personal thanks for the wholehearted support the Society has given him. He stated that this year has brought an increased number of problems. The corporate practice of medicine and the Blue Cross dilemmas, facing us as individuals and in the public press, were significant departures from the past. Amplifying, he read from the Steinle

Report concerning admission of private patients to hospitals supported by public funds. These special problems, he said, "call for increased awareness of our responsibilities" in the direction of "finding and working out an agreeable, unified approach" to their solution.

Russell S. Fisher, M.D., treasurer, gave his report of expenditures. His estimated budget for the coming year was similar to the previous year's, with provision for expected changes and alterations.

Reports of committees were presented in summary. Members had mimeographed summaries to follow. The meeting voted that decision to accept or reject be left to the Executive Board, with appropriate authority to implement the resolutions presented by the various committees.

The Committee on Constitution and Bylaws had several changes which were voted on and approved.

The Magistrates Committee recommended that "volunteer physicians be assigned to duty in the police station houses . . . and that they be reimbursed for their services by charging the prisoners for it . . ." From personal experience as a jail physician, I wonder how the committee determined how many of the individuals in the police stations requiring medical care would be in a position or frame of mind to be able or willing to pay for medical service.

President Diggs praised the yeoman work being done by the Committee on Public Medical Education, **Houston S. Everett, M.D.**, chairman. Some of us became aware for the first time that the radio and television programs have to be outlined and programmed a full year in advance. The radio and TV activity is only a small part of the tremendous work in public relations done for us by this valuable group.

The Committee to Investigate the Advisability of Transferring the Baltimore City Hospitals from the Welfare Department to an Individual Trusteeship, in an interim report, gave results of questionnaires sent to other large cities. A trusteeship has worked well in some cities for many years and is not a wholly new idea.

The Committee to Review Relationships between Physicians and Municipal Ambulances gave a fulsome reading of Fire Department releases on the subject. The report ignored the highhanded behavior characteristics of this

branch of the municipal service. One result of such reports is that ambulance dispatchers have right of way over physicians whenever their routes intersect. As long as the manual governing ambulance procedure is entirely in the hands of the Fire Department administrators, the physicians' concern in ambulance service will continue to be ignored.

The annual election of officers and delegates took place with a full slate to consider. President Diggs announced that **President-elect Wainwright** would supervise a group of 18 tellers to expedite the sorting and tabulating of the ballots. The ballots had been issued to eligible members on admission; thus the signing of names was not required. Tellers were Doctors **Frank Morris, Otto Phillips, Joseph Muse, William Ashworth, Paul Tinker, William Settle, Herman Long, Norman Freeman, Robert Wright, Henry Wollenweber, Otto Brantigan, John Hebb, Palmer Futch, Thomas Van Meter, Benjamin Rush, John Parsons, William Speed, and Irving Klemkowski.**

While tabulation of the ballots was in progress, coffee and doughnuts were available in the back of the hall. Conversational groups formed to discuss the events of the evening and the Colts' prospects in the next game. The report of the tellers came at one o'clock A.M. President Diggs read the names of the newly elected officers and delegates and announced that the amendment regarding absentee ballots had failed to pass.

The immediate past president, **Samuel Whitehouse, M.D.**, presented a gavel to the retiring president with a gracious speech. President Diggs then introduced the incoming president, **Charles W. Wainwright, M.D.**

Doctor Wainwright made a short and trenchant acceptance talk. On a highly inspirational tone, he declared that it is important to all of us to keep medicine in the position of high esteem which our predecessors attained. It is equally important to maintain the physician's position in the community as one to be emulated. With our help, he asserted, he would strive to keep high the public regard for our profession. He warned that in these critical times, the whole profession is being weighed in the balance by many paramount factors not present in the earlier days.

Following his talk he demonstrated vigorous leadership in opposing any release to the press

of our disputes of the meeting. A motion to release President Diggs' comments on the Steinle Report was decisively defeated. With a greater feeling of fellowship, possibly a by-product of the congeniality induced by the long wait the meeting adjourned.

* * * * *

The 1960 Executive Board held a regular meeting on Tuesday, December 10. Some disapproval was expressed on learning that the Yeager Committee's report for the State Insurance Commissioner (regarding the physician's part in utilization of Blue Cross) would not be referred to the component societies before being submitted to the Commissioner along with reports from Blue Cross and the Maryland Hospital Association. Shortness of the time allowed by the commissioner and conferences with the other two "high level" organizations would prevent any general communication and discussion of the contents of the report. When it was learned that the Faculty Council had entered a minority report to the commissioner regarding issues of disagreement with the final report, there was general applause. In the tripartite "Summit," Blue Cross and the Hospital Association can outvote the Faculty every time.

The City Society was asked to approve two community medical ventures, one being that of a pilot project providing home care for mentally disturbed patients. Apparently, approval of the "local medical Society" is required for correlation with higher public health authorities. The Executive Board deemed the project to be in line with current community interest. It will be directed by an eminently qualified physician. The Board stipulated that the City Society assumes no financial responsibility and gave its approval.

The second project concerns the Baltimore Association of Medical Assistants. The AMA-level group has a prototype charter, and state charters are issued to states with two or more local chapters. To gain national recognition, each local group must be approved by its component medical society. Since Cumberland already has a sponsored group, the Baltimore Association of Medical assistants would become Maryland's second chapter; Maryland could thus qualify for a state Charter. Under the basic charter plan, ten physicians are selected by each local association as sponsors. From information volunteered by a

potential sponsor, it was learned that the chief functions of the organization are in the fields of secretary education and good fellowship, with the additional opportunity for organized medicine to enhance public relations. Medical secretaries are considered the first line of public relations for the medical profession. This first line needs constant pointing up and reorienting in critical areas of public contact, which such an organization could provide. The Executive Board approved the sponsorship of a Baltimore City Chapter provided purposes in the original prospectus are held.

A request for contributions to a memorial for a well-loved physician was read. After discussing this at some length, the Board conformed to many previous Executive Board decisions that contributions from the Society to any specific cause would be against policy. If the Society officially contributes to *one* worthy cause, it could find no valid reason for not contributing to *all* worthy causes. Much as the members regretted, they advised the memorial committee that they might contribute as individuals, but not in the name of the Society.

An insurance broker requested time at our meetings to explain insurance plans that could benefit us. His attention was called to the fact that the programs for our regular meetings are fully scheduled for the next year. He was also to be advised of the resolution offered by our Committee on Insurance to the effect that Baltimore City Medical Society withdraw from the insurance business and coordinate with the Faculty's activity. The Board heartily concurred. This will throw our mass purchasing power into the pool with the rest of the state physicians, where it can be an asset in lowering premium rates.

Roy O. Scholz, M.D., chairman of the Section of Ophthalmology of the Baltimore City Medical Society, personally brought a request that ophthalmologists be permitted listing in the telephone directory as limiting their practice to diseases of the eye. Such special listing has been requested before, and hitherto the Board has felt that such listing was wrong for two reasons. First, it constitutes a form of public announcement akin to advertising and not heretofore considered ethical in Baltimore. The AMA stand is that policy in such matters must be in conformity with local custom, and such practice has

not been customary in Baltimore. Second, the Board has qualms about possible ramifications once the barrier is lifted for one specialty. In ophthalmology the boundaries are well defined, but who would have authority to say who could and who could not be listed in less well defined groups?

Doctor Scholz replied that in 79 per cent of major cities in the United States there were specialty listings in the phone book. He reported, further, the hearty reception given dissemination of the list of ophthalmologists recently authorized by this Board. Public health and school nurses, as well as others needing ophthalmologists in more remote areas, welcomed it as a long felt need. He cited the Maryland Society for Prevention of Blindness as being most anxious to have the Baltimore ophthalmologists listed in the phone

book; and he assured the Board that only members of the Ophthalmology Section of the Society, all of whom are fully qualified ophthalmologists, would be considered for specialty notation in the phone book. A member making an on-the-spot investigation discovered that "physicians" and "surgeons" list their "hours" as such even now and possibly have done so for years. Recalling the persistent pressure for listing of and by the Ophthalmology Section over the past years, the Board finally voted that they "do not disapprove *individuals* being listed in the phone book that their practice is 'limited to diseases of the eye' when so qualified." The 1960 Executive Board *DOES* disapprove any notion of an *alphabetical* listing in the phone book under *any* specialty classification.

FREDERICK COUNTY MEDICAL SOCIETY

L. R. SCHOOLMAN, M.D.

Journal Representative

The last meeting of the year was held in the Pine Room of the Hotel Frederick. This was election night, and in accordance with our ancient custom, an oyster dinner was laid before the members. After the serving of trays of freshly shucked plump oysters on the shell, replenished ad lib, the board was spread with a buffet of fried oysters, oyster fritters, baked ham, country ham, turkey, baked beans, lyonnaise potatoes, pickles, olives, celery, and sharp cheese. Preceded by a choice of pleasant drinks and topped by coffee, the meal was such as to cause us to lean back torpidly to participate in the anticlimax of the evening—the election.

Officers elected were: President, John Cul-

ler, M.D.; President-elect, Harry Gray, M.D.; Secretary, Russell Guest, M.D.; Treasurer, Richard Reynolds, M.D.; Executive Committee member, Charles Putnam, M.D.; Delegates, Frank Damazo, M.D., and Fred Heldrich, M.D.; Alternates, Rex Martin, M.D., and Al Powell, M.D.; Planning Committee representative, James Thomas, M.D.

The retiring president, Thomas Stone, M.D., was congratulated on a progressive and harmonious year.

Miss Louise King, Medical Chirurgical Faculty librarian, after graciously partaking of the repast, displayed several shelves of new books. She had a good sale.

REMINDER—HOTEL ROOM RESERVATIONS

APRIL 26, 27, and 28, 1961

Annual Meeting of Medical and Chirurgical Faculty

A block of rooms has been set aside at the Sheraton Belvedere Hotel, Charles and Chase Streets, Baltimore, for those attending the Annual Meeting of the Medical and Chirurgical Faculty in April. The hotel will take your room reservations now. When making your reservation be sure to mention that you will be attending the Annual Meeting of the Faculty.



MONTGOMERY COUNTY MEDICAL SOCIETY

CHARLES FARWELL, M.D.

Journal Representative

The winter weather has kept many of our Montgomery County Medical Society members so busy that there has been little time to spare for the news I often like to report here.

G. Leonard Gold, M.D., was elected an associate member of the American College of Physicians and was certified by the American Board of Internal Medicine.

DeWitt E. DeLawter, M.D., with others, wrote for publication in our Medical Bulletin a paper on the "Secondary Failure to the Sulfonyleurea Drugs in the Treatment of Diabetes Mellitus."

Under the sponsorship of our Montgomery County Medical Society Speaker's Bureau, **Bernard W. Murphy, M.D.**, spoke on "Mental Disorders" to the senior class at a local high

school. **Ann M. Dimitroff, M.D.**, spoke to another high school's Science Club on "Opportunities in Medicine."

V. L. Ellicott, M.D., who gave a talk on Social Security Amendments of 1960, was welcomed by his friends in Montgomery County who remember his years of service to the people here through the health department and our medical society.

Local newspapers reported the lifesaving teamwork supervised and assisted by **Herbert Glick, M.D.**, on behalf of an 18-month-old girl who became unconscious after choking on an aspirin tablet. The rescue squad and the doctors and nurses of Washington Sanitarium and Hospital deserve credit for their efficient and immediate help.

WASHINGTON COUNTY MEDICAL SOCIETY

JOHN D. TURCO, M.D.

Journal Representative

The Washington County Medical Society, Inc. held its annual dinner meeting on November 17, 1960. **Perry F. Prather, M.D.**, director of the State Department of Health, was the guest speaker. Dr. Prather spoke on the medical care program and care for the low income group at various levels.

W. T. Layman, M.D., outgoing president, made his annual report to the Society. A plaque was presented to Dr. Layman for his dedicated service to the Medical Society during the past year.

Throughout the year, the society has carried on a coordinated campaign against legislation detrimental to the best interests of patients and doctors alike. A genuine effort has been made to promote good relations with the related professions. We have taken an active part in community affairs and have offered advice and leadership in such diverse

fields as the problems of aging and medical aspects of civilian defense. We have become members of the Community Welfare Council. This past year, the Society revised its constitution and bylaws and has become incorporated.

Officers who were elected and installed for the coming year are as follows: President, **Dalton M. Welty, M.D.**; Vice President, **J. G. Warden, M.D.**; Secretary, **Joseph C. Crisp, M.D.**; Treasurer, **Sidney Novenstein, M.D.**; Board of Censors, **Bender B. Kneisley, M.D.** (one year), **Richard T. Binford, M.D.** (two years), **Phillip J. Hirshman, M.D.** (three years); House of Delegates, **Bender B. Kneisley, M.D.** (one year), **Archie Cohen, M.D.** (two years), **Frank Brumback, M.D.** (two years); Alternates to the House of Delegates, **Howard N. Weeks, M.D.** (one year), **George Jennings, M.D.** (two years), **John A. Moran, M.D.** (two years).

REMINDER REGARDING RESOLUTIONS!

Important Notice for Component Medical Societies and Individual Members of Medical and Chirurgical Faculty

The House of Delegates of the Medical and Chirurgical Faculty approved the following recommendations concerning procedure governing reports and resolutions given at the Annual and Semiannual Meetings:

1. *All reports must be sent to the Faculty office. Those reports which contain recommendations or resolutions must be in the office eight (8) weeks prior to the Annual or Semiannual Meeting, whichever happens to be concerned.*

2. *When the reports are received, those containing recommendations or resolutions will be sent to the Component Societies for consideration so that the Component Delegates may be instructed if desired. These reports will also be referred to Council for discussion at its meeting prior to Annual or Semiannual Meeting.*

3. *Those reports which contain resolutions are to be referred to the Resolutions Committee for consideration.*

4. *The Council will refer to the Resolutions Committee any recommendations which it feels should be formulated as resolutions. The Council will also transmit to the Resolutions Committee an opinion of the policy involved in the resolution.*

5. *Reports will be presented to the House of Delegates as usual, and it will be suggested as is normally done that reports not containing recommendations or resolutions be accepted as printed and distributed.*

6. *Those reports containing recommendations or resolutions will be considered and acted upon individually by the House of Delegates.*

This policy will be followed in all future meetings.

AS A RESULT OF THIS ACTION OF THE HOUSE OF DELEGATES, RESOLUTIONS FOR PRESENTATION TO THE APRIL 1961 ANNUAL MEETING OF THE HOUSE OF DELEGATES, MUST BE IN THE HANDS OF THE SECRETARY, WILLIAM CARL EBELING, M.D., AT THE FACULTY OFFICE, BY MARCH 1, 1961.

As adopted by the Council, the members of the Medical and Chirurgical Faculty are advised that the Resolutions Committee is anxious to hear expressions of opinions from members on any resolutions being presented to the House of Delegates at either the Semiannual or Annual Meetings, and that members in good standing who might wish to appear before this Committee to discuss a pending resolution may do so upon making a request to that effect to the Resolutions Committee.

RESOLUTIONS FOR APRIL HOUSE OF DELEGATES MUST BE IN FACULTY OFFICE

BY

WEDNESDAY, MARCH 1, 1961

IT WILL SOON BE TIME AGAIN
for
THE ANNUAL MEETING
of the
MEDICAL AND CHIRURGICAL FACULTY
OF MARYLAND
APRIL 26, 27, 28, 1961
THE ALCAZAR, BALTIMORE

The program for the 163rd Annual Meeting of the Medical and Chirurgical Faculty on April 26, 27, 28, 1961, is almost complete at this writing. Following is an outline of the program, which has been prepared by the Committee on Scientific Work and Arrangements, William E. Grose, M.D., Chairman:

Wednesday, April 26

- 9:30 a.m.—House of Delegates Meeting. All members of the Faculty are invited to attend, but only the members of the House of Delegates have the privilege of the floor.
- 10:00 a.m.—Exhibits open.
- 12:30 p.m.—Woman's Auxiliary Luncheon, Sheraton Belvedere Hotel. All members of the Faculty are invited to attend this luncheon.
- 2:15 p.m.—Panel Discussion on "Viral Infections of the Respiratory Tract," with William S. Jordan, Jr., M.D., of the University of Virginia School of Medicine, Robert H. Parrott, M.D., of the Children's Hospital of the District of Columbia, and Harry M. Rose, M.D., of Columbia University.
- 4:15 p.m.—Finney Lecture. Speaker to be announced.
- 8:30 p.m.—Medicolegal Symposium on "Malpractice Actions Against Doctors," with Russell S. Fisher, M.D., G. C. A. Anderson, Esq., and William D. Macmillan, Esq.

Thursday, April 27

9:00 a.m.—Exhibits open.

9:30 a.m.—Panel Discussion on "Management of Congestive Heart Failure." Participants to be announced.

11:00 a.m.—Speaker to be announced.

12:30 p.m.—Round Table Luncheon at the Park Plaza Hotel. There will be 25 round table discussions covering the various phases of medicine.

2:15 p.m.—"Stay Alive." Perry S. MacNeal, M.D., of the Pennsylvania Hospital, Philadelphia.

3:15 p.m.—The Beck Lecture. "Use of Radioisotopes in Medical Diagnosis." Merrill A. Bender, M.D., Roswell Park Memorial Institute, Buffalo.

4:15 p.m.—Trimble Lecture. Speaker to be announced.

7:15 p.m.—Presidential Dinner at the Sheraton Belvedere Hotel, which will be preceded by a Social Hour and followed by a General Meeting. The speaker for this meeting will be announced later.

Friday, April 28

9:00 a.m.—Exhibits open.

9:30 a.m.—Allan C. Barnes, M.D., Recently appointed Professor of Obstetrics and Gynecology at The Johns Hopkins University School of Medicine.

10:30 a.m.—Panel Discussion on "The Public Image of Medicine," with Richard O. Cannon, M.D., of Vanderbilt University Hospital, Russell B. Roth, M.D., of Erie, William S. Stone, M.D., of the University of Maryland School of Medicine, and one additional participant to be announced.

2:30 p.m.—House of Delegates Meeting. All members of the Faculty are invited to attend, but only the members of the House of Delegates have the privilege of the floor.

There will be approximately sixty technical exhibits, displaying a cross section of existing products and advancements in pharmaceuticals, medical equipment, scientific research, etc. There will also be several scientific exhibits.

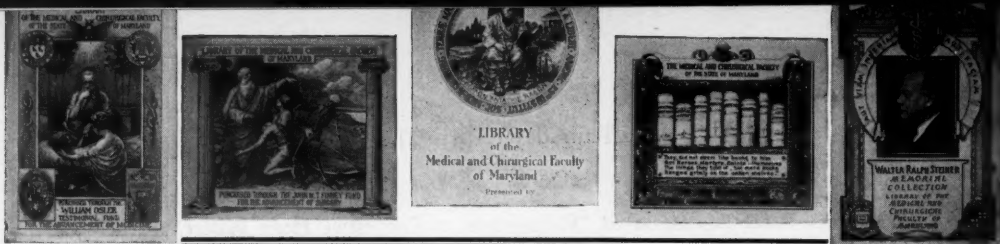
A copy of the detailed program will be mailed to all members of the Faculty early in April. (Credit will be given by the Academy of General Practice for attendance at these scientific sessions.)

SUPPORT YOUR STATE MEDICAL SOCIETY MEETINGS

ARRANGE YOUR SCHEDULE EARLY SO THAT YOU WILL BE ABLE TO

ATTEND THE ANNUAL MEETING

APRIL 26, 27, 28, 1961



Library

Louise D. C. King, *Librarian*

"Books shall be thy companions; bookcases and shelves,
thy pleasure-nooks and gardens." *Ibn Tibbon*

(We derived so much pleasure from perusing Roy Vernon Sowers' foreword to his Book Catalogue No. 65, we asked permission to reprint it here. We hope you, too, will enjoy reading this charming little article.)

STRICTLY PERSONAL

AMONG THE PLEASURES of bookselling, I put the preparation of a catalogue close to the top. For, since my Books & Prints, most of them, have been individually acquired, each inevitably stirs recollections—recollections not necessarily attached to the object itself, but often of fleeting experiences somehow incidental. Thus, by a curious chain of association, I find myself recalling our travels of a year ago; and of how, overwhelmed with what seemed too much history and saturated with what seemed too much art, we were fleeing the richness and beauty of Italy to seek the simplicities of the Alps—almost a traditional reaction of us northerners to a civilization we cannot wholly encompass, despite all our admiration.

So, I am reminded how, one afternoon, leaving our frugal inn a mile high in the Austrian Tyrol, I followed a footpath upward until I reached a large open meadow, with a few scattered larches in their new and tender green, and everywhere, abundance of flowers. Here I flung myself down in the lush grass and for a brief spell pretended that I was a child again. Often have I heard of the alpine flower fields and this was a dream come true. So I sat soaking up the warm sun and enjoying the sharp bite of the air fresh from the upper snows. The hurrying burble of dozens of steep little mountain streams blended with the distant tinkle of bells on browsing cattle and goats; and as I took in my surroundings I was aware of a little meadow chapel a few hundred feet above me and of peasants

working near it; and of other such fields on these mountain sides, some near, some distant, but all with men, women and children cheerfully cutting or spreading or piling the fragrant hay—all by hand, as their grandfathers, and *their* grandfathers had done before them. All about me were thousands, nay millions of wild flowers, nodding in the breeze; and, at eye level, it seemed, I looked on a ring of distant snow-capped peaks, from those of the Dolomites in the south, through Switzerland, and back to those of Austria, north and east. . . .

Another series of recollections, far more complicated, are those of some of the old Libraries we visited—for example, that in the Midlands of England, founded by a wealthy merchant about 1650, and whose endowment is now inadequate to modern needs. Staffed by two devoted women librarians . . . this library astonishes by its wealth of early printed and manuscript material, and even more, by its standards of knowledge and of reader help. . . . When, a little wiser, but much marvelling, I left, these two librarians had patiently resumed their transfer by hand of heavy folios from one of the rooms requiring work to control the death-watch beetle in the roof timbers.

And the pleasure of reading in the British Museum, or the quiet old alcoves of Duke Humphrey's Library of the Bodleian, is perhaps intensified, for an American, by the sad fact that it is brief; while, looking at exhibitions, as a bookseller, one sometimes experiences a secret satisfaction in recognizing within the glass cases, copies of books one has sold, or perchance just bought. Then there was my visit, with some trepidation, to the

Bibliothèque Nationale in Paris, where—having, be it mentioned, adequate reason for seeing it—I had on my desk the Gutenberg Bible (Cardinal Mazarin's copy on vellum, with the manuscript notation by Henricus Cremer, vicar of St. Stephen's in Mainz, stating that he finished rubricating and binding it on August 24, 1456). This, of course, is the most famous copy in existence, because it is upon this note that the date 1455 has been ascribed to it.

When we bring such books, and those somewhat less rare, to this country, it is our habit to assume that we are ensuring their better care; and it is true that we keep a lot of them in glass cases or in air-conditioned stacks. We have had no experience of the sort of destruction by war which all existing European libraries have survived—and which many did *not* survive. But, as the world's foremost exponents of the new economics of unlimited consumption* (With less than 10% of the free world's population and 8% of its land area, we in the U. S. now consume almost half the free-world volume of materials; and our rate of population increase is greater than that of India!) there seems to me no certainty that we can protect our libraries against ourselves. How many beautiful or historic buildings do we save for posterity, if they happen to be on valuable real estate? What chance of survival has any bit of natural woodland, if once it comes within the purview of our highway engineers or the lumber companies? And in the library field, we have the constantly growing problem of theft and mutilation of books by so-called students; while so-called librarians, to whom books are merely statistics, cheerfully advocate the open stack!

Not so long ago, in an American University Library, I shared a table with a young Ph.D. candidate working on 17th century English publishing history. On the table and a library truck, he had the Short Title Catalogue, Wing and a few other reference books, as well as perhaps \$5,000.00 worth of the original editions in old calf; and he was frantically making notes and shuffling these books about, as if his life depended on his haste. But I seriously doubt that his thesis will equal in value the damage done to irreplaceable books by his careless handling of them.

*F. Osborn: Our Reproductive Potential, Science, Mr. 22, 1957.

In such circumstances, indignation may be natural to a few of us; but should any of us be surprised? In a country where all things, from last year's refrigerators to our national parks, are regarded as expendable, why should we expect the arts of consumption to spare books, however rare? From infancy, through high school, are we to teach our youth, by TV, by radio, and by example, that all things old are obsolete—and then expect them, at college age, suddenly to mature, with a respect for books, or ideas, or ethics? A nation which firmly believes that it is more important to use our air-waves to sell tooth-paste or cars or sedatives, than to make our people think, can also fool itself. Nowhere in the world is there so much talk about education, but behind our golden curtain few can see the obvious fact that education is no longer limited to the school-room and that it fights in vain against publicity, advertising and propaganda, unless the latter are strictly controlled in the public interest. The long apparent corruption of our communications industry, now confirmed by congressional investigation, still awakens no public demand for basic reform; so, despite all the pious talk, education too proves to be expendable!

One of the functions of great books is to enable us occasionally to escape from the ugliness and stupidities of the present, into an ideal world, where men are wise and unselfish. Through them, we can associate intimately with the finest minds of a dozen centuries; and our civilization has been, in some sort, the product of each new generation adding its small accomplishment in the realm of ideas to this distilled wisdom of the past. I say "has been," because we no longer believe in civilization, but only, it would seem, in profits and high wages. Sometimes I wonder whether the Dark Ages were any more dark than will be the future which is being prepared by our prosperity, by our uncontrolled birthrate, and by our religion of pandering to mass appetites. If only one could be sufficiently detached, it would be interesting to speculate as to which great American library will be the last to be destroyed and how it will happen.

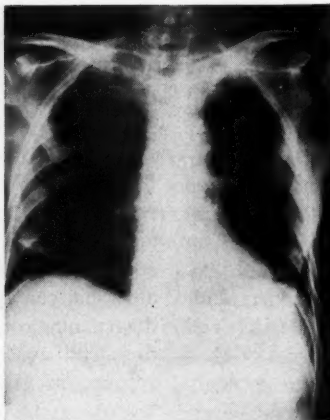
Roy Vernon Sowers

Perhaps the small libraries, such as your own, with its few treasures, will be the ones to which future scholars will turn.

Editor—William E. Peterson, M.D.



P.A. view of chest on admission



P.A. view of chest three weeks later

CASE OF THE MONTH

70-year-old white male with chief complaints of weight loss, vomiting, difficulty in swallowing, intermittent gastric pain, and weakness of the right side of the body. Initial chest film shows a well defined density at the right base. Small area of focal atelectasis at the left base. Film three weeks later shows decrease in R.L.L. density replaced by triangular density with a slightly depressed horizontal fissure.

How would you diagnose this? Turn to page 110 for correct diagnosis.

Toward A Better Understanding

THE MEMBERS of the Maryland Radiological Society, in initiating this page in the *Maryland Medical Journal*, have several purposes in mind. The first is to attempt in a series of brief articles (1) to familiarize our colleagues with the rapidly unfolding changes occurring within the specialty of Radiology, (2) to clarify problems peculiar to Radiology; for example, radiation protection with discussion of safeguards in this field and presentation of reasons why this matter has become of general and medical concern, (3) to promote mutual understanding and cooperation within the medical family.

The second purpose of this page is to present a monthly Radiological Case of the Month. This, we believe, will direct attention to the continually fascinating vagaries of roentgen diagnosis and will emphasize the constant need for detailed and mature evaluation of the radiographs. Clinical correlation is needed as it is in all medical fields.

The specialty of Radiology has become increasingly complex with only a few of the body orifices, vessels, organs, or tubes escaping the probing rays, contrast media, or isotopic evaluation. No other field is more intimately integrated with practically all other medical endeavors. The manifold aspects of this work in the modern practice of medicine not only tax and challenge all of the skills of the physicians but also demand harmonious, close cooperation and understanding between the radiologists and his clinical confreres. It is with the hope of establishing a clear understanding between all segments of medicine and, ultimately, to better serve the patient that we dedicate this page.



Maryland

SOCIETY OF PATHOLOGISTS INC.

EDWARD C. MCGARRY, M.D., *President* MANNING W. ALDEN, M.D., *Secretary*
Annapolis, Md.



PAPER ELECTROPHORESIS

PART II

Hemoglobin

IN 1949, THE HEMOGLOBIN in sickle cell anemia was first examined by electrophoresis and was found to differ from normal adult hemoglobin. Since that time, more than 30 different types of hemoglobin have been identified by this method, resulting in widespread interest in the field of hemoglobin variants and the clinical states associated with them. These variants have identical heme structure but differ in the composition and structure of the protein (globin).

Of the 30 or more types of hemoglobin, most have not been related to abnormal clinical states; hence we will limit our discussion to the nine hemoglobins of major clinical significance, with particular reference to genetic patterns, clinical manifestations, and methods for identification.

These hemoglobins include Hb-A (adult hemoglobin), Hb-F (fetal hemoglobin), Hb-S (sickle cell hemoglobin), Hb-C, D, E, G, H, and I. Embryologically, Hb-F is the first to appear in the fetus and comprises all of the hemoglobin present until the eighth month of gestation, when it is gradually replaced by Hb-A or some Hb-variant. This replacement process is usually completed by the twelfth month of extra-uterine life. After one year of age, about 92 percent of the hemoglobin present is Hb-A, 3 percent is Hb-A₂ (commented on below), and 5 per cent is Hb-F. Concentrations of Hb-F above 5 percent are pathologic, being commonly seen in thalassemia major (where it may comprise 10 to 95 percent of the total hemoglobin), sickle cell anemia (15 to 25 percent), and severe anoxic states (5 to 15 percent).

Hemoglobin-F is not considered a hemoglobin variant, but rather is produced under the control of a gene not associated with normal (Hb-A) or abnormal (Hb-C, D, E, G, H, I) adult hemoglobin, thus permitting it to coexist with the adult forms. Hemoglobin A₂ similarly coexists in a small amount with Hb-A,

This is the second of two articles on Paper Electrophoresis. It is being printed on both sides of the page, so that you can remove this single sheet and place it in your file.

and is probably closely related genetically to Hb-A even though it differs structurally. It does not occur in the absence of Hb-A.

Adult hemoglobin types (A, C, D, E, H, I) follow the genetic principles of Mendelian inheritance. Each parent contributes half of the total genetic composition to his progeny. If the genes responsible for the adult hemoglobin differ, the offspring will have two types of adult hemoglobin in approximately equal amounts, the heterozygous state. When both hemoglobin genes are identical, only one adult hemoglobin is present, the homozygous state. The patterns of inheritance of Hb-F and Hb-A₂ are not well established. However, Hb-F is known to be of a different genetic origin and may coexist with any of the other adult hemoglobins. Hemoglobin-A₂ accompanies Hb-A and occurs with heterozygous and homozygous states when Hb-A is present.

Hemoglobin-S is the hemoglobin responsible for sickling of red cells in sickle cell anemia. This phenomenon is dependent upon the insolubility of Hb-S in the unoxygenated form and conditions producing anoxia will produce in vivo sickling of red cells. Homozygous forms of Hb-S are by far the most serious, being associated with intravascular sickling, thromboses, and severe hemolytic anemia. General physical development is usually impaired and life expectancy reduced.

Heterozygous combinations of hemoglobin-S with other variants reduces the severity of the clinical picture. These patients have normal life expectancy and normal or slightly impaired development. Individuals with Hb-S-Hb-A combination are generally asymptomatic. Electrophoresis will demonstrate the presence of both hemoglobins; furthermore, the red cells can be demonstrated to sickle in vitro in the presence of a reducing agent such as sodium metabisulfite.

Homozygous or heterozygous combinations of other hemoglobin variants are rarely life threatening but, more commonly, are associated with mild hemolytic anemia, reticulocytosis, target cells, and occasional splenomegaly. Aside from the signs and the symptoms attributable to the anemia, these individuals are asymptomatic. A few exceptional cases have been reported where the severity of the hemolytic anemia has posed a clinical problem.

Combinations with Hb-A most often completely suppress the ill effects of other hemoglobin variants, being demonstrated only by electrophoresis.

While thalassemia is not due to a hemoglobin variant, rather representing a pathologic block in hemoglobin synthesis, it should be mentioned that association of this disease with the abnormal hemoglobins will produce, clinically, a condition similar to sickle cell anemia. In these cases electrophoresis will facilitate a correct diagnosis.

Identification of two specific hemoglobin variants requires the use of other methods. Because of similar electrophoretic mobilities, Hb-A and Hb-F must be differentiated by the alkali solubility test, where Hb-F is shown to be soluble in an alkaline solution, while Hb-A precipitates. Hb-S and Hb-D also possess similar mobilities. Sickling of the red cells permits identification of Hb-S. Hb-D may be separated from Hb-S by its solubility in the unoxygenated form. This latter step is important in patients suspected of having Hb-S-D combinations.

The introduction of paper electrophoresis into the clinical laboratory, more than any other factor, has accelerated the pace of research in abnormal protein states. In the usual clinical circumstances filter paper electrophoresis provides the needed qualitative information on the nature and approximate ratios of proteins. The apparatus is simple and inexpensive, and relatively large numbers of samples can be studied at one time.



BALTIMORE CITY HEALTH DEPARTMENT

HUNTINGTON WILLIAMS, M.D.
COMMISSIONER

P. O. Box 1877 Baltimore 3, Md.

Plaza 2-2000: Extension 307

Learn To Do Your Part In The Prevention Of Disease

900 Calorie-a-Day Weight Reducers

RECENTLY TWO Baltimore City milk companies requested permission under the strong city milk ordinance requirements regarding labeling, to produce and sell in Baltimore a "Skim Milk—900 calorie vitamin weight-reducing medicament—Mixture." In one instance, the proposed labeling for the skim milk cartons indicated that 900 calories a day constitutes "a full day's nutrition."

In my opinion, such advertising and labeling is dangerous. Careful studies of this whole matter lead me to believe that any such skim milk mixture containers should be clearly labeled as follows:

Skim Milk—900 Calorie Diet—Mixture, and the following conspicuous warning should be a part of the labeling:

This product is not safe for a complete diet substitute because it is such a severe reducing program. Therefore, it should be used only under a physician's direction.

For the same reason, I consider the many other 900 calorie diets now on the market through other outlets not safe as a complete diet substitute and to be used only under a physician's direction. I have sought the guidance in this matter of leading medical and nutrition authorities in Baltimore and elsewhere. They include Dr. E. V. McCollum, professor emeritus of biochemistry at Johns Hopkins University; Dr. Glen King, director of the Nutrition Foundation in New York City and president-elect of the American Public Health Association; Dr. Frederick J. Stare, professor of nutrition at the Harvard University School of Public Health; and Mr. Richard E. Williams, Baltimore District director of the U. S. Food and Drug Administration. All of these advisers are unanimous in supporting the proposed labeling and warning statements as set forth above.

Supplementing the views expressed above, Dr. Glen King has written that the use of 900 calorie-a-day diets do not, in his opinion, meet the views of most nutrition scientists and medical authorities for the following reasons:

1. The rate of weight reduction at that low caloric level is more rapid than is generally regarded as desirable. The individual is often subject to discomfort and is not likely to be at his best physical or mental performance.
2. Even though an individual stays on the diet long enough to get the weight down to an ideal level, his fundamental problem is not solved, because meanwhile he has not learned to select a well balanced diet of practical food supplies. This he would need to do for the balance of his life to avoid the risk of undisciplined or uninformed food habits which would again lead to excess body weight.
3. A fairly high percentage of overweight people are not in the best of health; yet, without receiving competent medical examinations and counseling, they turn to one of these products as a means of health improvement.
4. A regimen based on skim milk or a similar liquid furnishing only 900 calories is so lacking in bulk that constipation and other side reactions often occur.
5. The use of an abnormal diet denies one many opportunities of eating with the family at mealtime or with friends. These occasions have both practical and social values which do not have to be sacrificed in order to control weight.

Huntington Williams, M.D.

Commissioner of Health

A regular classroom session
for tuberculosis patients at Bal-
timore City Hospitals.

HOSPITAL OFFERS SCHOOL AWAY FROM SCHOOL



MARYLAND TUBERCULOSIS ASSOCIATION

Christmas Seal Agency for State of Maryland

900 ST. PAUL STREET

BALTIMORE 2, MARYLAND

Edith Williams and Franklin Bills*

DOCTOR CHARLES HASKINS, former president of the Saranac Lake Study and Craft Guild, wrote these words: "One teacher hour which changes hopelessness to hope, distress to peace, a chronic illness to the promise of health has more value in my mind than thousands of teacher hours which give ABC's only and no stimulation to individual and group betterment."

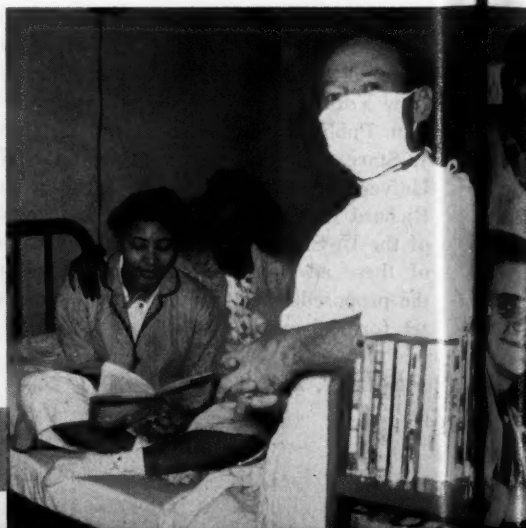
With this philosophy and this approach, Public School #354 was initiated in the Baltimore City Hospitals in the fall of 1953. Realizing the opportunity and the educational needs of young people confined for long periods in the hospital's Tuberculosis Division, the Baltimore City Department of Special Education assigned Mrs. Edith Williams as full-time teacher. The program covered elementary and junior high school subjects. A year later, the board found it necessary to employ a second full-time teacher and appointed Mr. Franklin Bills, who had been working in the Tuberculosis Division for three years

as Director of Rehabilitation. The program was extended to include senior high school classes and to accommodate children in the Pediatric Division.

Then, as now, all teaching was done with permission from the patient's doctor, and teaching schedules must conform to hospital routine. In order to meet this requirement, the organization of the school presents a constantly changing schedule. Ambulatory students meet in groups in

*Teachers-in-charge, Public School #354, Baltimore City Hospitals, Baltimore, Maryland.

William Tichner of the Enoch Pratt Free Library branch at the Baltimore City Hospitals makes the rounds with his book cart for patient-students at Public School #354.



regular classrooms, while bed patients are taught at their bedsides. Whenever possible, two or three students at the same work level are assembled in wheelchairs in a conference room. Room arrangements are made as conveniently as possible to suit the instructor's needs.

Curricula are prepared by the Baltimore City Department of Education, and a variety of materials are used to make instruction interesting and appealing. Teaching plans and methods are adjusted to suit the ability and physical condition of the individual student.

In November of 1955, a 'Telephone School' was inaugurated to augment the teaching program. By means of the Executone, a two-way telephonic device, patient-students on the seventh grade level participated in the classroom work of Public School #45A. English, science, mathematics, and social studies were included in the curriculum. To accomplish this program, faculty members of School #45A worked closely with the hospital teachers. Plans were then made to use the telephone system for students on the ninth grade level as well.

In the fall of 1958, the *Hilltop News*, a monthly magazine published by Tuberculosis Division patients, became a school magazine issued quarterly by the students of School #354.

The school is fortunate in having access to a branch of the Enoch Pratt Free Library, which is housed in the Tuberculosis Division. William Tichner, the librarian, visits the patients regularly with a well-filled book cart. All materials in the city library are available to the students.

Since the school was organized, more than 250 young patients have been enrolled as students during their hospitalization. Twelve have received

junior high school diplomas, while five have completed their senior high school work and were graduated from their own schools.

Although the greater part of the program is with Tuberculosis Division patients, youngsters suffering from a variety of other ailments requiring hospitalization, such as rheumatic fever, fractures, bone disease, nephritis, and diabetes, are helped to maintain continuity with their school work.

Mrs. Williams began her teaching career in one-room schools in Oklahoma where pupils had to move under their own power stimulated only by brief class periods. She finds the same techniques useful in hospital teaching. Mrs. Williams has had experience in the Oklahoma Tuberculosis Sanatorium as well as additional experience in elementary and secondary school teaching. She holds a master's degree in education with 30 additional hours and has a Carnegie fellowship at the University of Wyoming in international relations.

Mr. Bills holds a master's degree in education and has served as chief of educational therapy at the Physical Medicine Rehabilitation Service, VA Hospital for tuberculous veterans at Sunmount, New York. He has also taught in secondary schools of Syracuse, New York.

Both teachers agree that from the standpoint of the hospital, education for the patients is not only a process of learning, it is therapy as well. Preparation of lessons gives the patient something to occupy his time and enables him to make definite plans for the future. Thus the program "changes hopelessness to hope"; and hope, they added, is one of the most effective of therapies.



Left: Patient-students at Public School #354, Baltimore City Hospitals, keep telephone contact with Public School #45A to prevent interruption with their studies.

Below—Mrs. Edith Williams and Franklin Bills, teachers-in-charge at Public School #354, present a gift to Miss Pearl Chester upon the completion of her high school work. Miss Chester was the first student-patient to graduate from the school at Baltimore City Hospitals.





The Heart Page

A SERVICE OF

Luis F. Gonzalez, M.D.—Editor

THE HEART ASSOCIATION OF MARYLAND

SOME ASPECTS OF QUINIDINE THERAPY IN CARDIAC ARRHYTHMIAS

Yu-Chen Lee, M.D.*

THE USE OF QUINIDINE in modern medicine dates back to 1912, when a Dutch merchant presented himself to Wenckebach with the claim that he could cure his atrial fibrillation by the use of quinine. In 1918, Frey, on the basis of this observation, compared various cinchona alkaloids and concluded that quinidine was the most effective drug for cardiac arrhythmias.

The effects of quinidine can be summarized as follows: depresses myocardial excitability, decreases myocardial contractility, prolongs conduction time of the myocardium and the effective refractory period, protects against fibrillation, blocks the action of the vagus nerve, and produces vasodepressor action. Recently, quinidine has been reported to have an important role in the ionic flux of sodium and potassium ions of myocardial cells. Following intravenous administration of quinidine in laboratory animals, an increase of the intracellular potassium and a decrease of the intracellular sodium of the myocardium have been noted, as well as a decrease in the concentration of plasma potassium and a decrease in arterial pH. The quinidine levels in the kidney, liver, and myocardium are much higher than the blood quinidine level.

Quinidine has been used widely in many types of arrhythmias and remains one of the most important anti-arrhythmic drugs. Despite its usefulness, however, many physicians hesitate to use quinidine because of the potential toxicity. Frequent blood quinidine level determinations were advocated by Sokolow and others as a guide in quinidine treatment. This is not in common prac-

tice, however, partly because of the paucity of laboratory facilities. Furthermore, the effective and toxic blood levels vary widely.

When quinidine intoxication appears, immediate withdrawal of the drug generally results in prompt disappearance of the toxic manifestations. Infrequently, however, the intoxication may be serious enough to cause death. Recently, several investigators have claimed that molar sodium lactate has considerable beneficial effect on quinidine intoxication. The mechanisms of the beneficial effect of molar sodium lactate have been variously attributed to decrease in plasma potassium, correction of acidosis, decrease in concentration of plasma quinidine, or direct effect of the lactate. In our laboratory, molar sodium lactate was found to have some beneficial effect on moderate degrees of quinidine intoxication, but no significant beneficial effect was noted in severe quinidine intoxication. When lactate was given prophylactically, it failed to prevent the hypotensive effect of small amounts of intravenous quinidine. Furthermore, arrhythmias may ensue from the administration of molar sodium lactate. Therefore, if molar sodium lactate is used for quinidine intoxication, it must be given with due care and with recognition of the fact that it may be only minimally effective.

Electrocardiograms, blood pressure determination, and careful clinical observation before each dose are probably the most practical methods to guide quinidine administration. The symptoms of quinidine toxicity include anorexia, nausea, vomiting, weakness, blurred vision, vertigo, tinnitus, transient deafness, and mild diarrhea. If these symptoms are not accompanied by significant

*Instructor in Medicine, University of Maryland School of Medicine.

electrocardiographic changes or hypotension, they usually do not preclude further quinidine administration. Fever, thrombocytopenic purpura, and rash have been reported after quinidine therapy. Fortunately, the incidence of these complications has been rare. The appearance of frequent extrasystoles, sino-atrial block, atrio-ventricular block, ventricular tachycardia, increase of QRS duration beyond 30 per cent, or severe hypotension require immediate withdrawal of quinidine. Intravenous use of vasopressor substances is of value in relieving hypotension. In the treatment of atrial fibrillation, quinidine is usually given every two hours for five doses, with increments on succeeding days. A maximum daily dose of more

than 3 grams is usually not warranted. Large doses increase the danger of quinidine intoxication, and patients requiring large doses for conversion are, as a rule, difficult to maintain in normal sinus rhythm. Efforts must be made to correct any electrolyte imbalance and metabolic disturbance before attempting conversion. If infection, thyrotoxicosis, pulmonary infarction, or rheumatic activity exist, attempt of conversion should be delayed, if possible, until these conditions are treated.

Awareness of the pharmacologic actions and careful clinical observation should minimize the risk of quinidine therapy.

CALENDAR OF EVENTS

► Saturday, February 18 ◄

MARYLAND SOCIETY OF
PATHOLOGISTS

and
PATHOLOGY SECTION, B.C.M.S.

10:00 A.M. Hurd Hall,

The Johns Hopkins Hospital

a) Scientific Session I—Grand Rounds (Cases of special interest to pathologists.)

b) Pathology Department Tour.

1:30 P.M. Auditorium,

First Floor Basic Science Building,

The Johns Hopkins University School of Medicine

a) Scientific Session II—Presentation of papers (to be announced.)

b) Business meeting.

c) Cocktails and dinner, Sheraton-Baltimore Inn. (By reservation only.)

MEDICINE 1961

4:30-5:00 P.M. WMAR-TV

"Problems of the Newborn Baby,"

Alexander J. Schaffer, M.D.

► Tuesday, February 21 ◄

DERMATOLOGY SECTION, B.C.M.S.

8:00 P.M. 1211 Cathedral Street

"Research Developments in Dermatologic Research," Captain Joseph Demis, Walter Reed Army Medical Center, Institute of Research.

► Monday, February 27 ◄

ORTHOPAEDIC SECTION, B.C.M.S.

Children's Hospital

Papers to be presented by the residents of the various hospitals in Baltimore City.

► Tuesday, February 28 ◄

ANESTHESIA STUDY COMMITTEE

8:00 P.M. 1211 Cathedral Street

► Wednesday, March 1 ◄

COMMITTEE FOR THE STUDY OF
PELVIC CANCER

1:00 P.M. Westminster, Md.

Meeting with the Carroll County Medical Society

► Wednesday, March 8 ◄

MARYLAND SOCIETY FOR
MENTALLY RETARDED CHILDREN

GREATER BALTIMORE CHAPTER

8:15 P.M. 2525 Kirk Avenue

► Thursday, March 9 ◄

BALTIMORE DENTAL SOCIETY

Sheraton Belvedere

2:00 P.M.

Dr. John Mosteller, Mobile, Alabama

"Clinical Aspects of Restoration Materials"

3:30 P.M.

Mr. Ralph Phillips, Indiana

"Physical Properties of Dental Materials"

4:30 P.M.

Panel Discussion

Dr. Jose E. Medina—Moderator

Dr. Mosteller, Mr. Phillips and Members of the

Operating Dentistry Dept. of the U. of M.

6:00 P.M. Cocktails and dinner

8:15 P.M.

Table Clinics: by participating clinicians

► Monday, March 13 ◄

SACRED HEART HOSPITAL

MEDICAL STAFF

11:30 A.M.

School of Nursing,

Bellevue Street, Cumberland

► Tuesday, March 14 ◄

MARYLAND SOCIETY OF ALCOHOLISM

Officers and Executive Committee

8:00 P.M. Council of Social Agencies,

22 Light Street

The Annual meeting of the American Society of Psychosomatic Dentistry and Medicine will be held at the Shoreham Hotel, Washington, D. C., beginning Friday evening, March 10, until Sunday, March 12, immediately preceding the District of Columbia Dental Society meeting.



Woman's Auxiliary Medical and Chirurgical Faculty

MRS. E. RODERICK SHIPLEY *Auxiliary Editor*



FEBRUARY, 1961

SAMA WIVES INVITED TO BALTIMORE AUXILIARY MEETING

MEMBERS OF THE Student American Medical Association Auxiliary were guests at the December meeting of the Baltimore City Auxiliary. A delightful luncheon was provided by the hospitality committee, and the tables were gay with Christmas decorations.

Mary Belle Light, president, and ten other members were present. Mrs. Light expressed the pleasure of the student wives in being invited and related their prospects for the year. A Christmas party in the children's ward was their immediate concern.

William S. Stone, M.D., was the guest speaker. His topic was "Medical Education," which he introduced by asking two questions: "What is the product?" and "As a public, are we satisfied with this product?"

We are living in times of great stress; not the least of our problems is that of our present-day "teen-age escapist," or "beatnik." These are the young boys and girls who will grow up to be, in many cases, the professionals of tomorrow; but youth was ever thus.

Many people are claiming that the physician has lost his prestige; yet the public is more interested in health today than at any other time in our history and is concerned with this more than any other topic. Other countries are sending their medical students to this country for further learning instead of American doctors' going

abroad, as used to be the case. The United States has produced a great number of Nobel prize winners in the last decade from the medical sciences.

The ratio now is one doctor to 730 persons. This means that there are 200 families per doctor, considering the average family of today to have four members.

The student who applies for medical school today is of average or better than average intellect and has received a better than average education. After medical school, he will most likely pursue postgraduate work of some kind and continue to be a student the rest of his life.

Although the physicians' fees have increased but a fraction of the rise seen in most commodities, many people still complain about their doctor bills. They must be made to realize the great expense of obtaining a medical education and the additional years of schooling needed to reach a point where a physician can earn a living. They must be able to understand that he has to consider, to some extent, his family and himself. Physicians reach the point of becoming financially able to support a wife and family years later than the general populace, and they are frequently in debt at the outset from financing their exacting educational requirements.

Much has been said about the poor distribution of doctors. Few people stop to realize how life

has changed. In the days of sparse population and the horse and buggy, a radius of ten miles was the ultimate area that could be covered by one doctor. In recent years, many new drugs, laboratory techniques, and mechanical devices have come into use for diagnosing and treating patients. Such large and expensive equipment requires that the patient be hospitalized or be taken where the apparatus is located. The nature of such apparatus is such that the private physician could never afford to own or operate it. Because of the space, cost, and technical help necessary for its operation, such equipment is located in larger medical centers, where many patients can be treated in the course of a day. So we see that the patient now must go to the apparatus instead of the apparatus being carried to the patient. With the modern automobile and high speed expressways, distance and time have been reduced so that one man may easily cover a greater area.

The schools themselves are interested in securing an adequate quality and quantity of students. We must convince the medical profession in itself of the need to insure a continuing and increasing number of doctors. What are we doing to keep pace with the population growth? Eighty-five medical schools are now in existence, ten of which have been started in the last six years. Ten to 20 more will be needed in the near future.

Local responsibility must be stimulated to obtain the additional schools needed. If all responsibility were relegated to a remote department, we would lose a lot by not having the personal interest of the community at large. Where personal responsibility is felt, the interest in any venture runs high. The personal touch should not be replaced by bureaucracy. Some things cannot be accomplished by individuals. There are some states that have no medical school, but these should share some responsibility in supporting medical education.

In spite of the fact that, almost to a man, we are opposed to federal intervention into the practice of medicine in such a way that the treatment of patients and the doctor himself would be controlled, it is time to realize that some degree of federal aid is going to be a necessity. Four thousand dollars per year per student is the present cost to the school, over and above

tuition, of educating one student. Pennsylvania gives \$2500 per year per student to the medical schools in that state.

At present, 1.9 per cent of students graduating from colleges apply to medical schools, as opposed to 1.8 per cent in 1950. Wars have delayed many students from entering medical school; these students have entered later with federal aid. Standards of the schools are high, and they are checked frequently. Medical school admission tests are given. Most universities are now giving the National Standard Admission tests. This is a better yardstick for admissions than the 1935 method of recommendation of faculties of colleges. There were 50 per cent more freshmen than sophomores heretofore; today almost 90 per cent of those entering medical school receive their medical degree. Industry takes more of the academic students now than ever before.

What about the length of the medical school course; can we shorten it? Can the student do in three years what has previously been done in four? It may be possible to complete the theory in a shorter time; but after the second year, the student begins to see patients, which he needs to do to gain maturity. It is not reasonable to put an immature person out to practice medicine. Some students need the summer months to earn money to finance their education. They cannot do as well if kept constantly at the grind. The material a student is required to absorb cannot be absorbed in a shorter period of time than is now required.

Is talent being eliminated because of time, money, wives, children, and interest on loans? Scholarships and interest-free loans can be the solution to this problem. The average medical student graduates with a debt of \$4,000. This debt rises to \$10,000 by the time he completes specialty training.

The American Medical Educational Foundation needs understanding and assistance. The non-committed funds are now matched by the Ford Foundation. Other new loan funds and scholarships are badly needed.

Auxiliary members can go out and tell the story of their husbands' profession and its needs to the public, can answer their questions and elicit their interest.

Mrs. Virginia Shipley

Mental Health

GIFT PACKETS were collected and presented at Christmastime to the thousands of mental patients in our state mental hospitals and to the hundreds who are boarding in metropolitan Baltimore, who would otherwise have been forgotten at the yuletide season.

Mrs. Conrad B. Acton, of the Baltimore City Auxiliary, was chairman of the 1960 annual Christmas project, sponsored by the Baltimore Mental Health Association. She and her helpers sent out a call for 89,632 items to be used as gifts. The gift packets contained writing portfolios, to encourage the patients to maintain contact with the outside world, and such other items as mittens, scarfs, cosmetics, handkerchiefs, wallets, and socks.

This was a great community service done by the volunteers on behalf of those people who need, more than any others, not to be forgotten.

Annual Meeting of The Woman's Auxiliary to the Medical and Chirurgical Faculty

April 27 and 28, Red Room,
Sheraton Belvedere Hotel

Wednesday, April 27

- 9:00 A.M. Registration
- 10:00 A.M. General session
- 12:30 P.M. Luncheon (Charles Room),
Mrs. William R. Mackersie,
president of the Woman's
Auxiliary to the AMA
- 2:00 P.M. Fashions by Dorothy Lovell

Thursday, April 28

- 9:00 A.M. Past presidents breakfast
- 10:00 A.M. Board meeting, Mrs. Norman
Oliver, president

Allegany-Garrett Auxiliary Notes

BEING SUCH A NEW group, Allegany-Garrett Auxiliary has retained its same officers for the year ahead. By so doing, it is hoped to initiate some worthwhile projects and put them into action.

Future Nurses of America is high on the list of projects. Only one high school in Cumberland is organized; the other is interested. Mrs. A. J. Mirkin is chairman of this project.

The Public Medical Education Program is going strong under the guidance of Mrs. Carlton Brinsfield. Planning of social programs is under the chairmanship of Mrs. Benedict Skitarelic. This year's programs include:

September—Luncheon and fashion show at the Shrine Club.

November—"Nurse Recruitment," Mrs. Gladys Brooks, superintendent of Nurses Memorial Hospital, speaker.

January—"Medicine in India," Mrs. Ashok Khilnono, speaker.

May—Luncheon and election of officers.

Jean Lewis, President

American College of Allergists Graduate Instructional Course and Seventeenth Annual Congress, March 12-17, 1961, the Statler Hilton, Dallas, Texas. For information write, John D. Gillaspie, M.D., Treasurer, 2141 14th Street, Boulder, Colorado.

Case of the Month X-Ray Diagnosis:
Pulmonary Infarction